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ABSTRACT

Research conducted to refine and perfect a theory and model of the reading process is presented in this report. Specifically, studies of the reading miscues of 96 students who were either speakers of English as a second language or of stable, rural dialects are detailed. Chapters deal with the following topics: methodology, the reading process, language difference and the reading process, general insights into aspects of reading, examination of four dialect-speaking groups and of four groups speaking English as a second language, process and findings of retelling, and implications of the research for reading curriculum and for instruction of children with diverse language backgrounds. Tabular and graphic presentations of research data are included, along with general criteria for selection of reading material, guide questions to aid story retelling, materials for preparing and evaluating retelling, the retelling score sheet, the short form coding sheet for miscue research, markings for miscue analysis, and a sample worksheet.

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Final Report

Project NIE-C-00-3-0087

READING OF AMERICAN CHILDREN WHOSE
LANGUAGE IS A STABLE RURAL DIALECT OF
ENGLISH OR A LANGUAGE OTHER THAN ENGLISH

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Preface

This is an unconventional research report. Both in the sequence of presentation and in the stress and space devoted to data and data analysis, this report departs from the conventions of most technical reports. We start with conclusions and then use data to build the support for these conclusions and to draw implications as the report proceeds. Furthermore, the sheer volume of data the study has generated necessitates our being selective about how much data to present and when to present it. We are determined not to lose the forest in all those trees.

The research presented here must be seen as part of an extended voyage of discovery into the reading process. We went originally equipped only with conventional wisdom, a commitment to use the navigational tools of linguistics and psycholinguistics, and a philosophical belief that language and language learning are marvelous, uniquely and universally human attributes.

We knew where we wanted to go but we had only vague charts available to help us get there.

In this research we've been seeking an understanding of the reading process. Before we drop the nautical metaphor we can compare our efforts to the spacial explorer developing maps and charts of the territory he is probing. We have created a theory and model of the reading process based on our observations of what readers do when they read and on the inferences we draw about the processes that result in their observable behavior.

Throughout our research we have sought to refine and perfect the model at the same time that we attempt to use it to explain, categorize and predict what readers do as they read. We use the theory to organize, assimilate and interpret what we learn from analysis of the reality of reading, and we use the reality of reading to create, develop, and test the theory.

Our previous studies were done largely in the metropolitan Detroit area with urban Black and White subjects. These studies made it possible for us to see a picture of the reading process at work in a wide range of readers at different points in their development of reading proficiency. Through funded studies and a related set of doctoral studies we have looked at the reading of subjects who range from near beginners in first grade to highly proficient tenth grade readers. A list of these studies is in the appendix.

From these studies a picture has emerged of a unitary reading process, variable in its use, variable in the extent to which it is controlled by different readers, and variable within a given reader as tasks increase in difficulty, but nonetheless unitary with universal essentials.

Once again the study we report here has dual purposes. Our subjects are eight groups of American pupils who represent a wide range of linguistic diversity. Four groups have a language other than English as their mother tongue. The other groups speak relatively stable low-status dialects of English.

One purpose of this study is to test the model of reading against the reality of these linguistically diverse readers. Our theory tells us we should find the same universal essentials. The twin purpose is to provide insight into the strengths and weaknesses these linguistic and ethnic minorities demonstrate in their acquisition of reading.

Schools are disproportionately unsuccessful in teaching reading to children in the minority groups we are studying. We're convinced that this lack of success is partly, at least, the result of failure of teachers, curriculum designers, and text producers to understand the reading process, to usefully interpret pupil behavior in reading, and to build on the linguistic strength of all learners.

We do not hesitate to go beyond the data-based conclusions of the study using our theoretical base to draw implications for reading instruction. We try to make it clear when we do so.

Our research seeks basic knowledge about a fascinating and important human activity: reading. But we see this knowledge as vital to building sound and successful instruction. We have aimed this report, therefore, at the practitioner as well as the researcher and theoretician.

In discussing each of the groups in our study we begin with an in-depth discussion of a single subject in that group. Our purpose in doing so is to avoid losing the uniqueness of the individual in the characteristics common to the group. Our data contradicts many stereotypes, but we do not wish to inadvertently replace those with new stereotypes.

In selecting an individual for in-depth analysis, we are not presenting an average or typical member of each group.

Each individual is, of course, a member of a community and a participant in its culture. He or she reflects the attitudes, values, and common experiences of the culture. The language is social, part of the culture, but it is individual, too. By this focus on an individual, we can see the influence of the language and culture as the individual expresses and responds to it.

We seek, in this report, to keep in balance our concern for that which is universal to all who read English, that which is special to each American linguistic community, and that which is unique to the individuals whose reading we examine.

Acknowledgments

This research involved many minds and hands, much interaction, lots of heated debate, strained ears, eyes and tempers.

Patricia Rigg played a key role in the data analysis and processing phases. Dorothy Watson organized and gathered the data for the Texas Spanish group. Rudine Sims did likewise for the Downeast Maine group. Research assistants in data analysis and data gathering were Diane DuBois, Carolyn Ewoldt, Barbara Green, Francis Trix Haddad, William Laws, Margaret Lindberg, Catherine Buck Montoro, Jane Romatowski, Judith Smarr, Laura Smith, Michael Smith, Yvonne Steinruck, Carol Stenroos. Assisting with report writing were Bess Altwerger and Barbara Flores. Inta Gollasch joined in the proof-reading. Others who helped were Carolyn Jackson and Patricia Mahieu. Karen Goodman, Wendy Goodman, and Scott Rigg were general aids.

Marvin Pelot was our computer programmer.

Catherine Faria, Ilene Perrin Robinson were project secretaries. Diana Duncan typed the report.

Dissertations related to this study were completed by Diane DuBois, Patricia Rigg, Judy Smarr, and Laura Smith.

This project depended on the cooperation of many school people: teachers, aides, and administrators in Goliad, Texas; Machias, Maine; Tazwell, Tennessee; Chinle, Arizona; Dearborn, Michigan; Honolulu, Hawaii; Port Gibson, Mississippi.

We are particularly grateful to the 240 second, fourth, and sixth grade children who read for us and let us study their reading. Gracias, Mahalo, Salaam, Ahehee, thanks. Real good you wen' help us. Hit shore was. Y'all done goo-ood. A-yup!

INTRODUCTION

In our theoretical view we see reading as a psycholinguistic process in which the reader functions as a user of language. Through a series of studies of the oral reading miscues of readers at varying levels of proficiency, it has been demonstrated that the reader draws on his pre-existing linguistic competence and brings his experiential and conceptual development to bear in reading and learning to read. He uses syntactic, semantic, and graphic cues as he strives to create meaning from written language.

In prior studies, oral reading miscues (unexpected responses) of urban White and Black pupils have been studied. A complex psycholinguistic taxonomy (see Appendix) has been developed for analyzing and describing the reading process, and base-line data has been developed on how the reading process functions at various stages in its acquisition. The theory and model on which this research is based (see Chapter II) have been refined to correspond with reality as represented by the reading performance of pupils reading natural language materials.

This study seeks to extend the knowledge gained from this research to two special populations:

1. American pupils who speak a language other than English as their native language before entering school (Navajo, Samoan, Arabic, Spanish).
2. American pupils who speak a stable, low status dialect (Downeast, Appalachian White, Rural Black, Hawaiian Pidgin).

It is vital that we come to understand what aspects of the reading process are universal and what aspects are dependent on linguistic differences.

It is also vital that we gain insights into the special problems that learners encounter in becoming literate in a second language, or where there is divergence between the dialect of the learner and that of the school. These two groups are frequently reported to have serious problems in acquiring literacy in English.

This study provides an in-depth description of reading among speakers of English as a second language and speakers of stable, rural dialects at the same time that it confirms and refines the theory on which it is based.

Rationale

The Goodman Model of Reading (see Chapter II) is a model of the proficient reader of a native language. In the case of children learning to read English who have another language as their first language, the model would suggest difficulty in predicting English syntactic patterns and in relating English vocabulary to concepts and experiences. For speakers of stable, rural dialects, the model would predict minor problems around syntactic, semantic and idiomatic differences between the dialect of the learner and the dialect of instruction. These differences can be aggravated by rejection or misunderstanding by teachers.

The analysis of miscues in this study provides a basis for relating oral reading performance to underlying competence of subjects as they read English texts. When proficient native speakers read English, there is a continuous interplay between deep and surface language structure as the reader seeks to construct meaning (Goodman, 1971).

Speakers of stable, rural dialects that diverge from that of the text writer can be expected to exhibit different transformational rules which will lead to "translation" into their own dialect as they generate a new surface representation of meaning. The readers will vary in their receptive control over the writer's dialect; this should influence their reading processes.

Non-native speakers of English will be likely to exhibit a manipulation of surface structures which they cannot relate to deep structures, since they lack native control over the rules of English. To the extent that such subjects do not control English either receptively or productively, the reading process would be short-circuited, consisting primarily of producing oral equivalents of graphic symbols or patterns.

By examining the reading process under these special conditions, the research should provide a considerably extended view of that process.

Specific Aims

Oral reading protocols of subgroups of average pupils at three stages of schooling have been collected. In this report, they will be referred to as second, fourth and sixth graders since these are the most commonly known labels to which these stages relate. However, because of the pupils' varying ages, years of instruction and varying patterns of school organization, the individuals in the subgroups don't correspond exactly to the traditional view of such grade level designations.

The study has three main objectives:

1. To provide the knowledge on which programs can be based for improved reading achievement among American children

who speak a language other than English or a rural dialect of English as their mother tongue.

2. To extend knowledge of the reading process, particularly with respect to universals and differences between groups.
3. To test and improve the model and theory of reading on which the research is based.

Background

Two small federally funded studies (Project No. S425) A Study of Children's Oral Reading Behavior and (Project 7-E-219) Reading Miscues that Result in Grammatical Changes in Sentence Structure by Children upheld the premises stated above and were the basis for the development of the workable taxonomy which, further refined, was used in a later three year USOE funded study (Project No. 90375) Theoretically Based Studies of Patterns of Miscues in Oral Reading Performance. In the latter study, groups of pupils at three or four proficiency levels in the second, fourth, sixth, eighth and tenth grades were studied. This study, which ended in August, 1972, produced a base-line description of the reading process at varying points in its development and contributed to the full articulation of the psycholinguistic theory of the reading process which the principal investigator is developing.

Another funded study, conducted by Dr. Yetta M. Goodman, has utilized the taxonomy and research methodology of the proposed study. It is part of a longitudinal depth study of the reading development of six Black youngsters.

All of the studies, including those reported here and a group of doctoral studies completed or in progress (see Appendix), are part of a general program of research designed to provide as complete an understanding as is possible of the reading process and its acquisition in a full range of learners.

This research goes beyond the validation of a model and theory of the reading process. It applies the model to the explication of reading performance among proficient and developing readers, with varying language backgrounds.

Miscue Studies

Y. Goodman (1967) looked at the reading process over the first year of its development; she also analyzed the process in the same subjects

over the succeeding years. K. Goodman and Burke (1968) studied fourth and fifth grade proficient readers. Burke (1969) focused on grammatical restructurings of sixth graders. K. Goodman and Burke (1969), by studying second, fourth, and sixth graders, expanded the form of the taxonomy. Allen (1969) studied substitution miscues of second, fourth, and sixth graders. Using a similar range in subjects, Page (1970) concentrated on the effect of increased difficulty of materials on oral reading miscues. Menosky (1971) examined the effect of miscues in different text portions. Gutknecht (1971) looked at the reading miscues of perceptually handicapped children. Martellock (1971) looked at the relationship of the child's writing to oral reading and analyzed reading errors made when subjects read their own manuscripts. Rousch (1972) applied the taxonomy along with cloze procedure to the oral and silent reading of children determined to have high and low conceptual development related to a reading task. Sims (1972) used it to compare reading of two dialect versions of the same stories by Black children. Romatowski (1972) studied reading of Polish and English texts by bilingual subjects. Watson (1973) used a modified version of the taxonomy, the Reading Miscue Inventory (Y. Goodman and Burke, 1972) to develop classroom procedures and activities. Thornton (1973) dealt with the reading of stories with and without prior purpose being set. Greene (1974) examined multiple attempts miscues. Rigg's study (1974) compared rural Black subjects in the current study with urban Black subjects from past studies. Carol Stenroos (1975) studied miscues of children labeled gifted. Phyllis Hodes (1976) looked at bilingual readers of Yiddish and English. Carolyn Ewoldt (1977) studied deaf readers signing as they read. Diane DuBois (1977) did a study of Navajo readers which relates to this project. These studies all have sustained the psycholinguistic model and helped to refine the research taxonomy.

Research to Test and Establish Theories of Reading

The concern expressed by Helen M. Robinson (1968:401) that "The major deterrent to research on the reading process is the inefficiency of techniques for investigating the problems," is, for the most part, still true. Her suggestion is that "A wealth of information about processes could be secured from carefully planned. . . examination of children's reading behavior."

Kolers (1970) examined visual operations, sensitivity to grammar, and direct perception of the meanings of words in an attempt to contribute to a general model of the reader. However he has not yet presented a comprehensive theory of reading.

Ruddell's (1970) model of reading places emphasis on the importance of denotative and connotative meaning as well as on other linguistic aspects. He also considers the role of affective factors in reading.

His theory has some potential in explaining the reading process.

One of the best known theories of reading, Holme's "Sub-strata-factor" theory is based on manipulation of statistics generated by a set of reading tests. As Clymer (1968) points out, it is not possible to explain or predict cause and effect relationships on the basis of the Holme analysis, nor does it generate testable hypotheses.

With few exceptions (Goodman, 1970; Ruddell, 1970), theories of reading have been thinly built on partial views of the reading process. Such criticism can also include the Project-Literacy research, as reviewed by Wanat (1971), to the extent that these researchers have been content to look at one portion of the reading process at a time. The USOE sponsored Targeted Research Program in Reading reviewed all theories and models of reading.

Research programs designed to test comprehensive theories of the nature of language and language use have been practically nonexistent. Athey (1971), after extensively reviewing close to thirty models of reading, few of which are backed by research, states that the cognitive and psycholinguistic models of reading which she examined, do provide promising leads in the study of language and reading. Her report was part of the Targeted Research Program in Reading.

Research on Language and Reading in Bilingual Populations

Research using bilingual populations is limited. That which exists is varied but lacks depth in specific areas. Some studies exhibit limited scientific insight into the language and reading processes being tested (Linn, 1967; Cox, 1963). Linn suggests that accurate pronunciation can be a factor in reading success. His view ignores the variation that exists among competent speakers of English and the findings of other researchers (Goodman and Buck, 1973).

Yandell (1959) examined the effect of culturally biased reading tasks and illustrates how concepts rather than language are often a prerequisite to understanding context.

Other researchers (McDowell, 1967; Modiano, 1966; Venezky, 1969) have reached opposing conclusions on reading among bilinguals. All agree, however, that learning to read a second language is not the same as learning to read one's native language.

Kolers (1966) studied the reading process of French-English bilinguals. His findings suggest that printed words do not convey information on how they should be pronounced and that reading requires more than the translation of graphemes to phonemes.

Another study by Kolers (1966), using bilingual subjects, indicates that subjects recall meanings of extracts read but not whether they have read a French or English passage. His studies support the belief that reading is more than a visual operation and lay the foundation for examining the reading process in subjects with different language backgrounds as a means for developing an inclusive theory of reading.

Lambert's (1970) study in Montreal suggests that success in learning two languages is dependent upon school and community conviction that both are equally desirable.

Young (1972) investigated the reading of fifth grade Mexican-Americans at their instructional and frustration levels by analyzing the miscues they generated with narrative and informative materials.

Romatoski's (1972) miscue study analyzed the interaction of Polish and English upon each other in the oral reading of bilingual subjects. Her findings regarding phonological and syntactic influences in particular have implications for the instruction of bilinguals. Hodes (1976) found that her subjects produced miscues in reading Yiddish written with a Hebrew orthography comparable to their miscues in reading English.

A language as different from English as Navajo compounds the literacy problem for Indian bilingual readers (Kluckhohn and Leighton, 1958; Cazden and John, 1971: 252-272). Spolsky (1971), Modiana (1968), and Kaufman (1968) recommend teaching reading in the vernacular to bilinguals as one way to deal with the problem. DuBois (1977) in her miscue study of the same Navajo subjects over a two year period concluded that though progress was evident in reading English, their status as native speakers of Navajo was still a notable factor.

Research by Elders (1971), Jorstad (1971), Linder and Fillmer (1972) and Cicirelle, et al. (1971) indicates that different ethnic groups and different social classes bring varying strengths and weaknesses to the reading task.

The study by Ewoldt (1977) of profoundly deaf readers demonstrated that they, too, must be regarded as non-native users of English. American and other visual language forms known to the subject, differ sharply from English in form and structure. The effects from this visual language on the subject's reading of English were evident.

Research on Language and Reading among Speakers of Low Status Dialects and Stable, Rural Dialects

Ruddell and Graves (1967) measured the ability of first grade Black and Caucasian children to imitate, comprehend and produce grammatical

contrasts. A positive relationship is shown to exist between errors and socio-economic status. Reference is made to errors of inflectional endings without consideration of their relevance to the reading process as shown by research (Goodman, 1965).

Hagerman and Saario (1969) studied the proficiency of White and Black ninth graders in recognizing standard and non-standard English. Rosen and Ames (1971) compared dialect-based responses in continuous prose and single sentences when both sets of stimuli are written in standard English. Baratz (1969) examined dialect interference on performance in standard English of third and fifth graders. These researchers agree that there is evidence of dialect interference in the reading performance of non-standard dialect speakers. Labov (1968) sees dialect interference as operating only at the surface level and notes that non-standard speakers can understand standard even if they might not speak it.

Sisson (1968) and Niyekawa (1968) used "interference" in a psychological sense as opposed to its use by Labov. The irrelevance of the measuring instruments to many aspects of the reading process limits the usefulness of these two studies.

Generally, research on reading among low-status dialect speakers has been as limited and lacking in linguistic sophistication as has been that on bilingual subjects.

One exception is the research by Sims (1972) which compared the miscues of inner-city Black children reading dialect specific and standard English materials. Using the Goodman Taxonomy, Sims found that most miscues were related to ineffective reading strategies rather than to dialect interference. She found that her subjects produced dialect cued miscues in both directions.

Liu's study (1973) using miscue analysis and a related study by Johnson and Simon (1974) produced results which support Sims'.

More specific discussion of the literature on the effect of dialect difference on reading is provided later as each group is discussed.

Our groups have one thing in common: their home language lacks social status. This study explores the relationship of the language they speak to their reading.

CHAPTER I

METHODOLOGY

The basic task in this research, as in all miscue research, is to have each subject read completely a somewhat difficult story not read before by the subject. In this study, each subject reads two stories.

The subject's reading is recorded on audio tape and then analyzed by the research staff.

Selection of Subjects

Eight populations were chosen for this study -- four second-language groups and four dialect groups.

The second-language groups are Navajo (NA)*, Hawaiian Samoan (HS)*, Arab (AR)*, and Texas Spanish (TS)*. The Navajo and Spanish groups represent stable populations in that they have lived in the same geographic area for generations. The Samoan group represents children who were born in Samoa and in many instances, had school experiences where English was used as the means of instruction in Samoa prior to coming to Hawaii. The Arabs are children who have been in America a maximum of three years. Coming from Lebanon, Syria, Palestine and other middle-eastern countries, these children often had school experiences in their native countries in Arabic or French.

The four dialect groups are stable, the children being at least second-generation inhabitants of the area. In many instances, the families have been in the area for three or more generations. These dialect groups are Downeast Maine (DE)*, Appalachian White (AP)*, Mississippi Rural Black (MB)*, and Hawaiian Pidgin (HP)*.

In each of the eight populations, average pupils were selected to correspond in the particular school with second, fourth, and sixth grade levels. Differences in the time of year of taping and of enrolling practices for pupils (particularly among our Navajo subjects) cause some variation in actual grade placement.

In each case we sought pupils average for their schools. This determination was made by requesting that teachers list their best readers and their poorest readers. From the group of children not listed, subjects were selected for taping. Ten pupils at each level were taped; from these, four were selected for depth analysis in the

* The initials will be used to designate the groups in charts, tables, and other references.

study. Criteria for inclusion involved: tape quality, moderate miscue activities (we took the most average of the average) and background characteristics (we eliminated those with high test scores, those who had lived or gone to school elsewhere, and those with atypical socio-economic status).

Selection of Stories

Our original design called for all groups at the same level to read a common story. These we call standard stories. These standard stories had been used with comparable groups from past studies.

The standard stories are all from the same basal reading series (Betts Basic Readers, 1963). These stories were selected for earlier miscue studies because they represent the kind of reading that most elementary students are exposed to in school. In preparing for this research, Kitten Jones, a story in a 3-1 basal reader, which was used in previous miscue studies by second graders was selected to be read by all second graders. The Samoan and Navajo second grade readers were given easier basal reader materials also used in previous miscue studies because they could not handle Kitten Jones. In order to provide length equivalent to Kitten Jones and to generate sufficient number of miscues, two primer stories were combined and treated as one single story in all analyses in order to have comparable data for all second graders.

Our goal with the second stories was to provide as culturally and linguistically relevant materials for each group as possible. Chapter VII reports the treatment of the minorities in this study in children's literature and basal readers and the criteria used to select the stories. We did not find it easy to locate materials that met our criteria for relevance. We did, however, find well-qualified material for most groups and acceptable material for all.

Table 1-1 shows the groups in our study and their tasks.

TABLE 1-1
STORIES READ BY GROUPS

GROUP	GRADE	NO.	STANDARD STORY	NO.	CULTURALLY RELEVANT STORY
Navajo	2	26.	Two new Hats	68.	Henry's Choice
		28.	The Big Surprise		
	4	51.	Freddie Miller, Scientist	83.	Salt Boy
	6	53.	My Brother Is A Genius	81.	Sing Down the Moon
Hawaiian Samoan.	2	26.	Two New Hats	68.	Henry's Choice
		28.	The Big Surprise		
	4	51.	Freddie Miller, Scientist	69.	The Royal Race
	6	53.	My Brother Is A Genius	70.	Ghost of the Lagoon
Arabic	2	44.	Kitten Jones	68.	Henry's Choice
	4	51.	Freddie Miller, Scientist	87.	Mr. Moonlight and Omar
	6	53.	My Brother Is A Genius	88.	Fareedah's Carpet
Texas Spanish.	2	44.	Kitten Jones	86.	My Name is Miguel
	4	51.	Freddie Miller, Scientist	85.	Sancho
	6	53.	My Brother Is A Genius	77.	And Now Miguel
Downeast Maine	2	44.	Kitten Jones	82.	The Sky Dog
	4	51.	Freddie Miller, Scientist	49.	Andre's Secret
	6	53.	My Brother Is A Genius	84.	Two Against the Sea
Appalachian White.	2	44.	Kitten Jones	75.	The Sweet Patootie Doll
	4	51.	Freddie Miller, Scientist	74.	Old Ben Bailey Meets His Match
	6	53.	My Brother Is A Genius	76.	Cat Fight
Mississippi Rural Black.	2	44.	Kitten Jones	71.	Clever Turtle
	4	51.	Freddie Miller, Scientist	72.	Little Brown Hen
	6	53.	My Brother Is A Genius	73.	Roughing It
Hawaiian Pidgin.	2	44.	Kitten Jones	67.	Ah See and the Spooky House
	4	51.	Freddie Miller, Scientist	69.	The Royal Race
	6	53.	My Brother Is A Genius	70.	Ghost of the Lagoon

Miscue Analysis Procedures

Each subject reads a complete story at a single sitting with no help from the researchers. The taping is conducted in the subject's school in the most quiet available space. A trained staff member conducts the taping. Where possible, local aides are employed to serve as liason with the staff. In this study each story was read at a separate session, except for some second graders who read both stories in a single session.

Taping

After initial conversation to place the subject at ease, the researcher says: "Please read this story out loud. When you've finished I'm going to ask you to tell me the story you've just read. Don't worry if the story is hard. Just do the best you can. It's OK to guess or skip a word and go ahead."

The reading and retelling are audiotaped. The reader reads from the book while the researcher marks a type script. No help is offered even if the reader requests it. If the reader stops and does not continue, the researcher encourages him/her to "do the best you can." If no attempt follows, the researcher suggests reading on.

Retelling

When the reader finishes, the researcher says, "Tell me everything you remember that you just read as if you were telling a friend who hadn't read it." After the child responds with an unaided retelling, the researcher asks a series of open-ended questions to probe further evidence of comprehension. This procedure, as it has developed over several studies, is discussed in detail in Chapter VII and listed in the Appendix.

In our current studies, some Navajo and Spanish speaking subjects retold the stories to a local aide in their first language. The interviews were conducted in the native language.

Preparing the Official Copy

The marked typescript made at the time of taping becomes a resource for later use but it is not treated as an official transcript. Rather, two staff members independently listen to the tape. One of them normally does the coding of the miscues later. They meet after preparing their own typescripts to compare their versions. All unreconciled points of disagreement are resolved with a third listener. See the appendix for markings and a sample official copy.

Coding the Miscues

Next a staff member codes a reader's miscues using the Goodman Taxonomy. Each miscue is represented by a line on an IBM sheet. The first 50 non-dialect, non-repeated miscues and all dialect miscues within the same section of the text are fully coded. All subsequent miscues are listed by the address and the observed response only.

After the coding is complete, a second staff member checks the coding for accuracy and consistency. The two staff members resolve differences. Then the coded sheets are key punched and the data is stored in a computer disk file.

Computer Processes

An error scan program is run to find inconsistent coding or impossible values for variables. Coding errors are edited. Next a reformatting program is run which supplies additional data from stored texts of the stories and grammatical codings. It supplies: text of expected response, grammatical code of expected response, peripheral field information, and sentence number for each miscue.

The reformatted data is edited again, particularly for addressing errors.

This reformatted data becomes the subject of further statistical analysis.

In addition, a data file is created with summary data for each subject reading each story. The program which produces this file results in a print-out of statistics for each subject: 1) Total miscues per hundred words (MPHW), dialect and non-dialect MPHW, total coded MPHW, residual MPHW; 2) Percents of dialect, correction, semantic acceptability, syntactic acceptability, comprehending, and retelling scores and 3) Means for graphic, phonemic, syntactic and semantic proximity. Since this file also has sex, race, group data, it can be used for subsequent group and correlational analyses.

Subsequent Basic Analysis

SPSS (Statistical Package for the Social Sciences) programs are used either operating on the reformatted data or the summary data to produce: single variable frequency tables, two variable contingency tables, variable by subject contingency tables, group statistics, and correlations.

Additional Analyses

Specially produced programs produce analyses of miscue occurrence by sentence in each story, frequency of words with each grammatical function for each story, and alphabetic listings of words with their grammatical functions.

What's A Miscue?

A miscue is a point in oral reading where the observed response (OR) and the expected response (ER) don't match. But that requires a determination of the range of expectation.

All responses that are phonological dialect variants are not counted as miscues. He'p for help, or the various pronunciations of almond are treated as expected responses. A range of possible pronunciations are established as expected responses for unusual names.

The first complete attempt at each occurrence is counted. Partial attempts are not counted as first attempts. If no full attempt follows, the miscue is considered an omission. Subsequent attempts at a single ER occurrence or exactly equivalent OR for ER substitution or repeated omissions of the same ER word are not coded in the basic analysis. A separate analysis of multiple attempts at the same or repeated ER's is made.

The Taxonomy

The Goodman Taxonomy compares ER with OR in oral reading miscues on the following variables: Correction, Dialect, Graphic Proximity, Phonemic Proximity, Allologs, Syntactic Acceptability, Semantic Acceptability, Transformation, Syntactic Change (if acceptable), Semantic Change (if acceptable), Intonation, Bound Morpheme, Word and Free Morpheme, Grammatical Function of ER and OR, Semantic Word Relationship, and Peripheral Field Influence. Each miscue is coded with a value for every pertinent variable. We are looking for patterns in the miscues rather than specific causes for each miscue.

A full form of the taxonomy was provided in the appendix to our prior technical report (Goodman and Burke, 1973). A somewhat earlier form appeared, with discussion, in the Reading Research Quarterly (Goodman, 1969). For the purpose of facilitating the discussion of our data in the subsequent chapters, a short listing of the taxonomy with its sub-categories is provided in the Appendix.

The taxonomy as used here is essentially the same as it was in the preceding study, but some minor modifications have been made:

Sub-morphemic, phrase, and clause levels aren't coded.

Syntactic and semantic acceptability may now be coded acceptable except for other miscues.

Intonation is coded yes-involved, no-not involved.

Syntactic and semantic change are coded 1, 4, 7, 9, with the former range having these new values:
0-2 = 1, 3-5 = 4, 6-8 = 7. No change remains 9.

Volume of Data

Our studies involved eight groups of four pupils at each of three grades reading two stories each; that means we had 96 subjects and 192 story readings. Fifty non-dialect miscues (or all, if less than fifty) were coded for each story reading. That amounts potentially to 400 coded non-dialect miscues per group of four pupils, 1200 per population and 9600 coded non-dialect miscues for the entire study.

Table 1-2 shows real totals for the groups in the study.

Actually, 9,328 non-dialect miscues were coded. Almost 11,000 miscues, including dialect, were coded out of a total of over 30,000 miscues produced by the subjects in the study. Since, in the current study 18 variables are coded for each miscue, almost 200,000 separate bits of data related to the subjects' miscues were generated by the study.

Table 1-2

Miscue Totals

Group		Total Miscues		Total Coded		Total Dialect		Total Non-Dialect	
		Standard	Relevant	Standard	Relevant	Standard	Relevant	Standard	Relevant
Navajo	2	221	279	203	225	24	48	179	178
	4	837	495	247	263	48	64	199	199
	6	882	1002	239	236	41	36	198	200
Hawaiian	2	169	237	164	204	13	21	156	183
Samoan	4	617	1081	239	250	43	52	196	198
	6	894	1245	238	259	38	59	200	200
Arabic	2	400	206	229	180	29	16	200	164
	4	515	568	225	229	22	26	203	203
	6	863	1333	217	204	17	5	200	199
Texas	2	246	369	188	213	21	14	167	200
Spanish	4	392	654	213	226	16	25	197	201
	6	912	1205	218	215	17	15	201	200
Downeast	2	280	180	192	176	4	6	188	170
Maine	4	600	281	203	202	5	3	198	199
	6	719	764	202	212	4	11	198	201
Appalachian White	2	495	623	212	215	9	16	203	199
	4	447	458	207	212	9	11	203	199
	6	820	908	210	218	8	22	202	196
Mississippi	2	544	231	224	220	28	25	196	195
Rural Black	4	641	914	267	284	79	93	188	191
	6	796	984	279	281	76	92	203	199
Hawaiian	2	291	332	215	238	28	41	187	196
Pidgin	4	506	1028	220	221	22	20	198	201
	6	675	938	229	222	30	24	199	198
Total		13832	16375	5285	5465	631	745	4659	4669
Total all Stories			30207		10690		1376		9328

CHAPTER II

THE READING PROCESS*

One purpose of this research study is to extend our knowledge of the reading process and of the psycholinguistic model to represent it that we have been developing over the past dozen years. This chapter will deal with the process of reading as we now see it as a result of all research including this study.

We choose to present the process and model here so that it will provide a framework and basis for discussion of the data and insights from the miscue analysis of the eight populations we deal with later.

A Definition of Reading

Much of the research on reading and most of the instruction in how to teach reading is based on unexamined assumptions about what reading is and how it works. Our research has started with a view of reading as a receptive language process; we've refined this into a working definition consistent with and guiding the research.

Reading is a receptive language process. It is a psycholinguistic process in that it starts with a linguistic surface representation encoded by a writer and ends with meaning which the reader constructs. There is thus an essential interaction between language and thought in reading. The writer encodes thought as language and the reader decodes language to thought.

Further, proficient readers are both efficient and effective. They are effective in constructing a meaning which they can assimilate or accommodate and which bears some level of agreement with the original meaning of the author. And readers are efficient in using the least amount of effort to achieve effectiveness. To accomplish this efficiency, readers maintain constant focus on constructing the meaning throughout the process, always seeking the most direct path to meaning, always using strategies for reducing uncertainty, always being selective about the use of the cues available and drawing deeply on prior conceptual and linguistic competence. Efficient readers minimize dependence on visual detail. Any reader's proficiency is variable, depending on the semantic background brought by the reader to any given reading task.

*Parts of this chapter have appeared in a modified form in Language and Reading (Smiley and Towner, 1975).

Theory and Reality

In this study, as in past reading miscue research, we use a taxonomy generated from the theory and model to analyze the miscues subjects produce as they read and we use the miscues they produce to verify and modify the taxonomy and the theory. This interplay between theory and reality, we believe, is the essence of science.

All scientific investigation must start with direct observation of available aspects of what is being studied. What distinguishes scientific from other forms of investigation is a constant striving to get beneath and beyond what is superficially observable. That involves finding new tools for making otherwise unavailable aspects observable. Such a tool is the microscope in all its variations designed to extend observation far beyond the limits of the human eye. Scientists also devise classification systems, taxonomies, paradigms as they constantly seek for essences, structures, interrelationships. They are aware of the distractions the obvious can cause and they are aware of how easy it is to overlook vital characteristics of phenomena they study.

The primary source of data for the view of the reading process presented here is observation of oral reading. But little can be learned from such observation if a naively empirical position is maintained. As the chemist must peer into the molecular structure, as the astronomer must ponder the effects of heavenly bodies on each other, as the ecologist must pursue the intricate web of interrelationships in a biological community, so the scientist in dealing with reading must look beyond behavior to process. Understanding reading requires depth analysis and a constant search for the insights which will let us infer the workings of the mind as print is processed and meaning created.

Miscue analysis compares observed responses with expected responses as subjects read a story or other written text orally. It provides a continuous basis of comparison between what the readers overtly do and what they are expected to do. A key assumption is that whatever the readers do is not random but is the result of the reading process, whether successfully used or not. Just as the observed behavior of electrons must result from a complex but limited set of forces and conditions, so what the readers do results from limited but complex information sources and interactive but limited alternatives for their use.

Miscues: Windows on the Reading Process

When readers produce responses which match our expectations we can only infer successful use of the reading process. When miscues are produced, however, comparing the mismatches between expectation and observation can illuminate where the readers have deviated and what factors of input and process may have been involved. A simple illustration: there has long been concern over reversals in reading, changes in the sequence of letters, apparently involved in word substitution miscues.

If was is substituted for saw, there appears to be some kind of visual or perceptual aberration in the reader. Our miscue analysis data, however, tells us two things: (1) Such reversals are far less common in reading continuous texts than in word lists; (2) when such reversals do occur, they are in only one direction: saw is replaced by was, but virtually never is was replaced by saw. The reversal miscue must be influenced by factors other than the obvious visual or perceptual ones. Frequency, syntactic predictability, range of semantic possibility clearly are involved.

In this depth miscue analysis, several basic insights have emerged which have become foundational both to the research and to the model of the reading process:

- * Language, reading included, must be seen in its social context. Readers will show the influence of the dialect(s) they control both productively and receptively as they read. Further, the common experience, concepts, interests, views, and life styles of readers with common social and cultural backgrounds will also be reflected in how and what people read and what they take from their reading.
- * Competence, what readers are capable of doing, must be separated from performance, what we observe them to do. It is competence that results in the readers' control of and flexibility in using the reading process. Their performance is simply the observable result of the competence.

Change in performance, whether through instruction or development is important only to the extent that it reflects improved competence. Researchers may use performance or behavioral indicators of underlying competence but they err seriously in equating what readers do with what they are capable of doing.

- * Language must be studied in process. Like a living organism, it loses its essence if it is frozen or fragmented. Its parts and systems may be examined apart from their use but only in the living process may they be understood. Failure to recognize this has led many researchers to draw unwarranted and misconceived conclusions about both reading and reading instruction from controlled research on aspects of reading such as word naming, word identification, skill acquisition, and phonic rule development.

Particularly, researchers have tended to fall into the unexamined view that reading is recognizing next words. An example is the study by Singer, Samuels and Spiroff (1973-74) of reading acquisition.

They concluded that words were more easily "learned" in isolation than in text or with illustration. They drew this conclusion from a study in which four (4) words were taught to a number of learners in three conditions:

- (a) in isolation
- (b) in "context": each word was presented in a three word sentence.
- (c) with an illustrative picture.

The key misconception in this study is that reading is a matter of identifying (or knowing) a series of words. It is then assumed that learning to read is learning to identify or know words. Further it is assumed that known words are known under all linguistic conditions. Implicit is the assumption that the task of "learning" four words is representative of the general task of learning to read.

- * Language must be studied in its human context. It is a uniquely but universally human achievement. That's not a humanistic assertion. It's a scientific fact. Human language learning and the general function of language in human learning are not usefully described with learning theories derived from study of rats, pigeons, and other non-language users.

A Revised Model

Three kinds of information are available and used in language, whether productive or receptive. These come from (1) the symbol system, which uses sounds in oral languages and graphic shapes in written. For literate language users of alphabetic languages, there is also a set of relationships between sounds and shapes; (2) the language structure, which is the grammar, or set of syntactic relationships that make it possible to express highly complex messages using a very small set of symbols. The same syntax underlies both oral and written language; (3) the semantic system, which is the set of meanings as organized in concepts and conceptual structures. Meaning is the end product of receptive language, both listening and reading; but meaning is also the context in which reading takes on reality. Listeners/readers bring meaning to any communication and conduct themselves as seekers of meaning.

A model of the reading process must account for these information sources. It must also respond to the following realities:

Written language is displayed over space in contrast to oral language which is displayed in a time continuum.

Writing systems make arbitrary decisions about direction in using space. The reader must adjust to a left-to-right, right-to-left, top-to-bottom, or other arbitrary characteristic of written language.

Reading employs visual input. The eye is the input organ. It has certain characteristics and limitations as an optical instrument. It has a lens which must focus; it requires minimal light; it has a limited field; the area of view includes a smaller area of sharp detail.

Reading must employ memory: it must hold an image, briefly store information, retain knowledge and understanding.

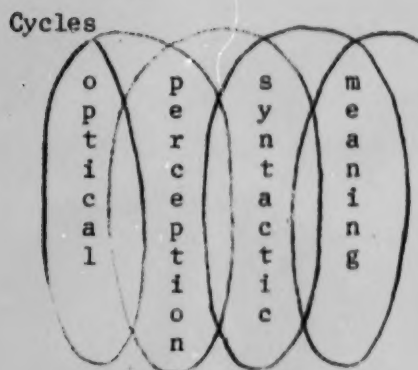


Figure 2-1

Though reading is a process in which information is dealt with and meaning constructed continuously, it can be usefully represented as a series of cycles. Readers employ the cycles more or less sequentially as they move through a story or other text. But the readers' focus, if they are to be productive, is on meaning so each cycle melts into the next and the readers leap toward meaning. The cycles are telescoped by the readers if they can get to meaning.

Strategies

As the readers move through the cycles of reading, they employ five strategies. The brain is the organ of information processing. It decides what tasks it must handle, what information is available, what strategies it must employ, which input channels to use, where to seek information. The brain seeks to maximize information it acquires and minimize effort and energy used to acquire it. The five strategies it employs in reading are:

- I. Recognition-initiation. The brain must recognize a graphic display in the visual field as written language and initiate reading. Normally this would occur once in each reading activity, though it's possible for reading to be interrupted by other activities, examining pictures, for example, and then reinitiated.
- II. Prediction. The brain is always anticipating and predicting as it seeks order and significance in sensory inputs.
- III. Confirmation. If the brain predicts, it must also seek to verify its predictions. So it monitors to confirm or disconfirm with subsequent input what it expected.
- IV. Correction. The brain reprocesses when it finds inconsistencies or its predictions are disconfirmed.
- V. Termination. The brain terminates the reading when the reading task is completed, but termination may occur for other reasons: the task is non-productive; little meaning is being constructed; the meaning is already known; the story is uninteresting; the reader finds it inappropriate for the particular purpose. At any rate, termination in reading is usually an open option at any point.

These processes have an intrinsic sequence. Prediction precedes confirmation which precedes correction. Yet the same information may be used to confirm a prior prediction and make a new one.

Short Circuits

Any reading which does not end with meaning is a short circuit. Readers may short circuit in a variety of ways and for a variety of reasons. In general, readers short circuit (1) when they can't get meaning or lose structure; (2) when they've been taught or otherwise acquired non-productive reading strategies; (3) when they aren't permitted to terminate non-productive reading. Theoretically, a short circuit can occur at any point in the process. Here is a list of short circuits with successively more complex points:

Letter Naming

A very old method of reading instruction taught young readers to spell out to themselves any unfamiliar words. This short circuit still occurs but it is not too common. Deaf readers may use finger-spelling as a variation of this short circuit.

Recoding

Since print is a graphic code and speech is also a code, it is possible for readers to concentrate on matching print to sound with no meaning resulting. Since the readers go from code to code, such short circuits may be considered recoding. Recoding may take place on several levels. Letter-sound recoding is the most superficial. Sounds are matched on a one-to-one basis to the print. This sounding-out requires the readers to blend sounds to synthesize words. Pattern-matching recoding involves the readers fitting spelling patterns to sound patterns. Readers focus on features which contrast patterns such as rat-rate, hat-hate, mat-mate. Recoding is often by analogy; since bean looks like mean it must sound like it, too. This recoding produces words or word-like utterances without requiring synthesizing. Internal surface-structure recoding involves using the rules needed to relate print to underlying surface structure. Instead of going beyond to deep structure, however, the reader generates an oral surface representation. This recoding can produce words with approximate intonation patterns.

Syntactic Nonsense

The readers may treat print as syntactic nonsense, generating an appropriate deep structure without going beyond to meaning. Even proficient readers resort to this short circuit when conceptual load is too great or when they lack relevant background. With this short circuit, the oral reading may be relatively accurate and yet involve little comprehension. Because readers do employ this short circuit, we have come to regard the separation of syntactic deep structure from meaning as a useful view.

Partial Structures

Readers may resort to one or more of these short circuits with alternating periods of productive reading. Furthermore, because the brain is always actively seeking meaning, some comprehension will often "leak" through even the most non-productive short circuits. It will most likely result in fragments of meaning, a kind of kaleidoscopic view, rather than an integrated understanding.

Many of these short circuits may result from instruction, but the studies to demonstrate this remain to be done.

Table 2-1

THE REVISED MODEL

Cycles	Inputs	Output
<u>Start</u> Recognize task as reading known language	Graphic Display Memory: Recognition-Initiation Activate strategies in memory.	Optical scan cycle
1. <u>OPTICAL</u> a. Scan in direction of print display.	Start: Memory: Strategies for scanning appropriate to graphic display Adjust speed of scan to processing speed.	Optical fixation cycle To memory: Predict relation of information to direction of display
b. Fix: focus eyes at point in the print.	Light reflects from graphic display. Visual field includes sharp and fuzzy input. Memory: Prior prediction of meaning, structure, graphic redundancy, expectation of locus of key graphic cues.	Perception Cycle To memory: Cues for Image Formation
2. <u>PERCEPTION</u> a. Sample - Select: Choose cues from available graphic display.	Fix: Cues available in sharp and blurred input. Memory: Sampling strategies Prior predictions and decodings to meaning.	To memory: Selected cues. To Feature Analysis.

b. Assign deep structure.
Seek clauses and
their interrelation-
ships.

From: Internal surface
structure.

From memory:
Transformational rules
for relating surface and
deep structures.

Prior predictions and
decodings.

If no structure possible, try
alternative.

If still no structure, recycle.

If inconsistent with prediction,
correct by recycling.

If deep structure possible,
predict graphic, semantic,
syntactic features.

Go to meaning.

If oral reading, assign appro-
priate intonation contour.

Terminate if no success.

4. CONSTRUCT MEANING
a. Decode

From: Deep structure

From memory: Stored exper-
iences, conceptual
constructs, lexicon.

Prior predictions.

If meaning not acceptable,
recycle to point of
inconsistency.

If no meaning possible, try
alternate deep structure
or recycle to seek more
information.

If still no meaning, hold
all information in memory
and return to Scan.

Terminate if no meaning results.

If acceptable meaning, go to
Assimilated-Accommodate.

b. Feature Analysis: Choose features necessary to choose from alternate letters, words, structures.	Sampled features. From memory: Assign alloystem(s) (type style, cursive, etc.) Prior predictions	Confirm prior prediction. Correct if necessary by return to Scan, Fix. If no system available, try best approximation or terminate; otherwise proceed to Image Formation.
c. Image Formation: Form image of what is seen, and expected to be seen. Compare with expectations.	From: Feature analysis, cues appropriate to allo-system(s) chosen. From memory: Graphic, syntactic, semantic constructs Prior predictions Cues from parallel phonological system (optional)	If no image possible, return to feature analysis or prior cycle for more information. Confirm prior predictions. If correction needed return to prior cycle, scan back for source of inconsistency. If image formed, store in memory and go to Syntactic Cycle.
3. <u>SYNTACTIC CYCLE</u> a. Assign internal surface structure.	From image formation From memory: Rules for relating surface display to internal surface structure. Prior predictions and decodings.	If no structure possible, recycle to Perception or Optical Cycles. If inconsistent with predictions, try alternate or correct by recycling and scanning back to point of mismatch. If structure is possible, go to Deep Structure.

b. Assimilate-
Accommodate:

If possible,
assimilate.

If not possible,
accommodate prior
meaning.

From: Decode

From memory: Prior pre-
dictions, prior meaning.

Conceptual and attitudinal
constructs.

If no assimilation possible
and no accommodation
possible, recycle to correct
or obtain more information.

If still not possible, hold
and return to scan for
possible clarification as
reading progresses.

Accommodations possible:
modify meaning of story/text
to this point
modify predictions of meaning
modify concepts
modify word definitions
restructure attitudes.

If task complete, terminate.

If task incomplete, recycle
and scan forward, predict
meaning, structure, graphics.

Uses and Limitations of the Goodman Model

The Goodman Model built through miscue analysis is a general model of the reading process based on the premise that there is a single reading process. In that sense it is an unlimited macro-model of reading.

It is psycholinguistic, since it deals with how language and thought are interactive. But it operates within a sociolinguistic context. Language is social and it is through language that people mean things to each other. Reading, like all language, operates in a social context which includes readers and writers.

Since reading is a unitary process, several key premises follow: The model deals with reading in the context of written language in the context of language. It focuses on the proficient reader, but is applicable to all stages of development. It has been built through the study of English reading, but it must be applicable to reading in all languages and all orthographies.

Reading comprehension as the model represents it, must be consistent with language comprehension and general comprehension.

All this means the model may not be inconsistent with any model of a larger context except in factors peculiar to the use and physical aspects of written English. Reading is language, so what's true for language must apply to reading. Reading and listening are both receptive language, so they cannot differ except in the linguistic medium and use. What the model predicts for English reading must also work for any other language except in terms of how specific characteristics of the syntax or orthography are accommodated by the reading process.

The reading model may be criticized for being inconsistent with valid theories of more general processes but it is not responsible for dealing explicitly with more than reading. It can not be attacked for what it need not do.

Similarly, the model must be inclusive of all factors of reading under all conditions, though it need not explicitly or completely stipulate them. It must be applicable to:

1. all characteristics of text, text structure, text length.
2. all characteristics of the reader: linguistic and cognitive background, values and beliefs, motivation, proficiency, physical and mental condition.
3. all characteristics of syntax and grammar.
4. all characteristics of semantic systems: propositional structures, idioms and metaphors, pragmatics, functions, cohesion, inference.

5. all characteristics of memory as they involve language and cognition.
6. all characteristics of perception as it is involved in language and cognition.
7. all characteristics of orthography: symbols, system, features, directionality, relationship to meaning, relationship to phonology.
8. all conditions of reading: purpose, task, setting, third party influences, context.

The model, to be defensible, must be able to include or accommodate detail in any aspect of the reading process or its use without distorting either the model or the detail. It may, of course, offer a reconceptualization of the detail on the basis of the model's internal coherence. Thus, research findings by others which appear inconsistent with the model may be shown to be consistent through reconceptualizing them.

The model can not be criticized for being incomplete, though it can be criticized for being unable to accommodate detailed micro-modeling of any factor or aspect.

There are some things the model isn't. It isn't complete in detail in any aspect. It isn't a theory of comprehension, cognition, or perception. And it isn't a theory of reading instruction. That last must be consistent with a model of the reading process. But it must include a learning theory and theories of curriculum and instruction. A theory of reading instruction building on a theory and model of reading is the ultimate bridge to the classroom. The model presented here is not "something to use on Monday morning". It is the necessary base for the theory that will generate things to do on Monday and explain why they do or don't help people to read more efficiently and effectively.

CHAPTER III

LANGUAGE DIFFERENCE AND THE READING PROCESS

In this study one thing we seek to do is to test a view of the process of reading English to see whether it is applicable to the reality of reading in eight different populations after 2, 4, and 6 years of instruction.

Perhaps our most important conclusion is that there is a single reading process which underlies reading, no matter what the language background or relative proficiency of the reader. Demonstrated differences, then, are not in the process but in how well it is controlled. Any effects of lack of complete receptive and productive control of English among second language learners on their reading will either (a) be noticeable but superficial in which case the process can still be relatively efficient and effective or (b) be somewhat disruptive to comprehension or (c) limit the ability of the readers to express what they have understood. We have evidence of all three of these effects in this study. Native speakers of variant dialects of English will show some influence of their dialects in reading or retelling but these will not in themselves be disruptive of reading proficiency.

Part 3, Chapters IV, V, VI, and VII report the findings of this research in detail. In this chapter we will show the reading process in action in our eight populations and the evidence to support our single-reading-process conclusion.

Use of the Three Cue Systems in Reading

Syntactic Cues

There is considerable evidence that all readers are using English syntax to some degree. Over 60% of all the miscues produced by all readers in this study are syntactically acceptable before correction. (See Chapter IV, Tables 4-18, 4-19, 4-20) Second-grade second-language groups show means of 52.9 to 59.2% on their combined readings. All other groups but NA4 (59.9%) and DE4 (55.6%) have means above 60%.

Rarely does any group of second graders produce over 20% of miscues with lost deep structures (HS2, 21.3%; MB2, 20.1%; and AR2, 20.5% on the standard story and AP2, 21.6% on the culturally relevant story. See Chapter IV, Table 4-25). Only one fourth grade group, NA4, exceeds 15% lost deep structure, 15.6%, on the standard story. (Table 4-26, NA6 with 12.6% and TS6 with 13.4%, both on the standard story, are the only sixth grade groups to exceed 10.6% lost deep structure.) Higher percents in second grade may reflect higher rates of word omission rather than greater problems with syntax.

High percents, 60 to 80% of word substitutions for all groups, have the same grammatical function for expected (ER) and observed (OR) responses. This includes many non-words which retain inflections and appropriate intonation.

Some examples from our subjects will show their use of syntactic cues:

TS4-111 S85

0301 she ^{pu}poured warm milk into ^{the}a bottle,

0302 ^{Den}then ^dshe sat on the floor with the calf's head in her lap.

Here the subject substitutes the for a and inserts a deleted deep structure subject she where it could have been.

Even when subjects shift deep structure they often can be seen moving to other English structures:

TS4-111 S85

0306 "So ^{the}young (to) lose your mother, my Sancho."

Here are examples of minor transformations with deletion or insertion of an element optional in the surface structure.

AP414 S74

0113 Had to be left (at) home.

0614 Old Ben Bailey jumped up and down in rage.

AR615 S51

0304-S I thought ^{that}the (re)frigerator would explode.

Sometimes the syntax takes on a quality due to the reader's own stage of acquisition.

HS4-713 S69

0114 Bending ^{below}low, Umi was able to

0115 make his way to the stockade. ^

0116 Around the building, ^{he}He climbed, ^

0117 up the smooth ^(c)posts quickly.

- 0713 Following the King
- 0714 ^{the} came a young chief, ^{*bearing} bearing a
- 0715 black and red feather flag on a
- 0716 tall pole. Last of all walked two
- 0717 ^{mens} men carrying drums.
- 0801 This was
- 0802 ^{the} a warning to clear the way. ^(C) No
- 0803 ^{shadows} one's shadow might touch the
- 0804 King when he walked.

As the last reader illustrates, the most common type of syntactic dialect or second language influence in our subjects reading involves inflections. Hawaiian Samoan, Hawaiian Pidgin, Mississippi Black, particularly show no past tense forms characteristic of their dialects.

Our studies tend to support the view that these shifts are syntactic and not simply consonant reductions: We get work for worked and aim for aimed, but we also get want for wanted.

Here's an example of the miscues of HS703, a Samoan second grader, reading S68. She has one of the lowest percents of syntactically acceptable miscues, 37%, of any reader in the study.

- 0101 Henry didn't have a ^{this} ^{(C) pit} pet.

Reader's Comments
*I don't know this
and this.

- 0102 But Henry ^{Put} didn't care because his friends

- 0103 let him play ^{will they} with their ^{(C) pits} pets.

- 0104 Susan had a cat.

- 0105 Henry liked to play with her cat.

0201 John ^(C)ha-^{called to} had a dog that could do tricks.

0202 ^(RS)Henry liked ^(C)one ^{tri-}trick ^{2.b- 4.bite}best. ^{1.bet 3.bite}

0203 He liked to have the dog ^(C)it sit up and

0204 ^(C)2.shag
1.shack
shake hands.

0301 One day Henry's father said, "I think

0302 it's time for you to learn how to

0303 take care of ^(C)a ^{pets}pet."

0304 ^(RS)So he took Henry to a pet store.

0305 "Pick out the pet you want,"

0306 ^(C)Henry's ^(C)father said.

0401 Henry didn't think he wanted

0402 to take care of a pet.

0403 But he went around the store and

0404 looked at all the animals.

0405 "Do you want a ^(C)ha-amster ^(RS)his ^(RS)father ^{axed}asked?" ^{hamster?"}

This subject makes some deliberate omissions (0102); she resorts, at times, to reading word by word (0103, 0201). But her substitutions are English words and she's using English syntax (0105, 0303). She reads some sequences without miscues. Only her substitution of put for but and her omission of didn't have any potential relationship to influence of Samoan language on her reading.

The latter may reflect a problem that shows particularly among our Navajo second grade readers in coping with the peculiar use of do plus n't to show negation in printed English. Pidgin, her form of English, would say simply, "Henry no care".

NA510, a Navajo second grader with only 30% syntactically acceptable miscues on the same story, shows similar patterns:

- 0104 ^{VC} sent him cats
 Susan had a cat
- 0105 likes ^C cats
Henry liked to play with her cat.
- 0201 John had a dog that ^{VC} with ^C could did trucks
 could do tricks.

Both readers show more control of syntax as their reading progresses.

Their reading is not very effective, but they are using, and sometimes misusing, English syntax: shifts in tense, number, etc. Perhaps their tendency to substitute syntactically inappropriate words stems from early experiences with reading English before they had much receptive control of English.

All our readers show more varied kinds of dialect and second language syntactic patterns in their retellings than in their reading. Only the inflectional changes approach equal frequency in reading and retelling. We have no evidence that inability to cope with Book English syntax is a general problem for any group.

Semantic Cues

All groups show less ability to preserve meaning than syntax. Some real differences also show between second language and dialect groups. Fourth grade dialect groups have a mean on both stories read or 27% semantically unacceptable miscues, while second language groups have 42%. Similar differences, 25.5% for dialect groups and 37% for second language groups show in sixth grade.

Still on HS4 (both stories, 29.3%) has less than 30% miscues semantically acceptable in sentence or passage. Comprehending score, percent of miscues acceptable or corrected, is above 40% for all grades and groups, but AR6 (39.7% on the culturally relevant story) and ranges to above 70% for at least one group in each grade. Dialect groups tend to have higher comprehending scores on all grades than second language groups. An exception is the TS (Spanish-English) group that ranks second

among second grade groups and fourth in fourth grade groups on standard stories. They show high ranks in all grades on more relevant stories. Comprehending reflects the readers apparent concern for making sense from their reading. The lower scores for second language groups may reflect a weakness of our system. We do not count anything semantically acceptable which is not syntactically acceptable. That works for dialect speakers since we judge acceptability in terms of their own dialect. But with second language readers who have transitional English syntax, we're probably rejecting, syntactically and semantically, some things that make sense to them.

This factor can not account for the whole difference, however, because retelling score means also favor dialect groups in fourth and sixth grades. The means are 53% for dialect groups and 46% for second language groups on S51, the fourth grade standard story, and 53% and 43% on S53, the sixth grade standard story. (See Chapter VII Table 7-2) HP is low among dialect groups in retelling and TS is high among second language groups. (Chapter VII, Table 7-3) Ranges in retelling scores overlap for all groups and are wider for second language groups. Our second language groups, particularly Navajo and Arabic, showed some difficulty in communicating their meaning in retelling.

But our readers are all showing some concern for meaning and demonstrating some degree of comprehension.

Graphophonic Cues

Miscues of all our subjects reflect their use of graphic information. All subjects also show an ability to relate English spelling patterns to speech sound patterns.

All groups have moderate to high means for both graphic and phonemic proximity. Means for second language groups are higher than dialect group means for all grades except sixth grade phonemic means which are identical at 5.2. (See Chapter IV Table 4-43)

Second language groups show higher mean percentage of non-words for fourth and sixth grades (See Chapter IV, Table 4-44). These non-words tend to have high graphophonic proximity. Omissions are highest in the second grade for most groups.

Though AR2 readers omit less and produce more non-words than other second language readers, this seems less related to their language background than possible instructional strategies they've experienced.

Then particularly high rates of non-words for fourth grade second language users may reflect some insecurity about their ability to recognize whether English words are real or not.

What these findings about use of graphophonic cues add up to is that, though listeners may hear the phonology of the dialect of our dialect groups and the first language influences on the phonology of our second language groups in their oral reading, there is no notable problem any of our readers have dealing with the phonic relationships in English.

We see a minor phenomenon represented by a tendency for AR or HS readers to use real words starting with p for words starting with b and vice-versa: put for but, bush for path, blow for plow. Since p/b do not both occur in their first language such substitutions are not surprising. They are not common either, however.

We note a further tendency which has shown in other miscue research for graphic phonemic proximity to be higher in miscues as comprehension declines. In all grades there are significant, but low, negative correlations between graphic means and comprehending scores. That may relate to the higher means for our second language groups.

Cycles and Strategies

We interpret our data as supporting the concept of a single reading process, essentially consistent with the model presented in Chapter II, for all readers. We believe that differences in effectiveness in readers reflect differences in how well this single process is used. We can support these conclusions, as we do in Chapters IV, V and VI with statistical data. Here we'll use particular subjects in our eight populations to illustrate.

Six of our second grade groups read Kitten Jones, story 44. Here's a short sequence from that story with the reading of it by one randomly selected reader from each group. This section is out of the middle of the story and relates to a key incident.

TS101 0401	One day Sue was taking a picture	Shore
DE202 0401	One day Sue was taking a picture	pitcher @
MB301 0401	One day Sue was taking a picture	Susan talking
AP404 0401	One day Sue was taking a picture	u talking
AR602 0401	One day Sue was taking a picture	C tso C talking
HP801 0401	One day Sue was taking a picture	
TS101 0402	in the garden.	C the suddenly @
DE202 0402	in the garden.	garden @
MB301 0402	in the garden.	yard
AP404 0402	and in the garden.	C and suddenly
AR602 0402	in the garden.	yard u silen
HP801 0402	in the garden.	* sudden

TS101	0403	to a drink and ^{run} into the house. She
DE202	0403	to a drink and ^{run} into the house. She
MB301	0403	da a drink and ran into the house. She
AP404	0403	a drink and ran into the house. She
AR602	0403	(RS) a <u>drink</u> and ran into the house. She
HP801	0403	de @ a drink and ran into the house. She
TS101	0404	lef @ left the camera on the grass.
DE202	0404	left the camera on the grass.
MB301	0404	left the camera on the <u>ground</u> grass.
AP404	0404	left the camera on the grass.
AR602	0404	left the ^{cream} camera on the grass.
HP801	0404	and @ left the <u>cam-</u> camera on (the) grass.
TS101	0405	(C) ^{kit-} Kitten had been playing in the roses. ^
DE202	0405	^{kitty} Kitten had been playing in the rose
MB301	0405	Kitten had been playing in the ^{nose} rose
AP404	0405	Kitten had been playing in the ^{roses} rose
AR602	0405	(C) ^{ch-} Kitten had <u>been</u> playing in the rose
HP801	0405	Kitten had been playing in the rose
TS101	0406	(C) ^{v-} vines. Now she walked over to the camera.
DE202	0406	vines. (C) ^{N-} Now she walked <u>over</u> (to) the camera.
MB301	0406	vine @ vines. Now she walked over to the camera. da @
AP404	0406	vines. Now she walked over to the camera.
AR602	0406	* vines. vines. Now she walked over to the camera.
HP801	0406	(C) ^{v-} vines. Now she walked over to the camera.

TS101 0407 She began to sniff at it. She ^{snip} sniffed at ^{it} its

DE202 0407 She began to ^{sniff} sniff at it. She sniffed at its

MB301 0407 She began to ^{begin} sniff at it. She sniffed at its ^{smell} this

AP404 0407 She began to ^{sn-} sniff at it. She sniffed at its ^{He}

AR602 0407 She began to ^{begin} sniff at it. She ^{swaffin} sniffed ^{swaffed} at its

HP801 0407 She began to sniff ^{ch-} at it. She sniffed at its

TS101 0408 ^C sides and its ^{cameras} corners. ^A She thumped the

DE202 0408 sides and its ^{coners} corners. She thumped the

MB301 0408 sides and its ^{at} corners. She ^{think} thumped the

AP404 0408 sides and its corners. She thumped the *I'll skip that

AR602 0408 ^{uc} sides and its ^{croing} corners. She ^{toast} thumped the

HP801 0408 sides ^d and its ^{corn-} corners. She ^{thumb} thumped ^{it} the

TS101 0409 camera ^{which} with her white fur paw.

DE202 0409 camera with her white fur ^{paws} paw.

MB301 0409 camera with her white fur ^{pill} paw.

AP404 0409 camera with her white ^{f-*} fur paw.

AR602 0409 ^{craymer} camera with her white ^{four} fur paw.

HP801 0409 camera with her white fur paw.

* That's fur right there
(had missed it 3 times earlier.)

TS101 0410 ^{shoe} Sue came out just in time to see Kitten

DE202 0410 ^{S-} Sue came out just in time to see ^{Kitty} Kitten

MB301 0410 Sue ^{she comed} came out just in time to see ^{just} Kitten

AP404 0410 Sue came out just in time to see Kitten

AR602 0410 ^C Sue came out just in time to see Kitten

HP801 0410 ^C Sue came out just in time to see Kitten

TS101 0411 playing with the camera.
 DE202 0411 playing with the camera.
 MB301 0411 playing with the camera.
 AP404 0411 playing with the camera.
 AR602 0411 playing with the ^{her craymer} camera.
 HP801 0411 playing with the ^{with de} camera.

Several miscues are produced by more than one of those subjects: Our Mississippi Black (MB#3), Appalachian White (AP#4) and Arab (AR#6) subjects all say talking for taking. One corrects, one tries to correct unsuccessfully. This miscue illustrates several things about the unitary reading process: The three systems operate together; talking looks and sounds alot like taking. Both are verbs in verb positions, following was, with ing inflections. And talking is semantically predictable: "One day Sue was talking (to her mother, with Penny etc.). Self-monitoring, disconfirming shows in the attempts at correction two of the three make.

Two subjects, MB#3 and AR#6, substitute yard for garden. Again semantic, graphophonic and syntactic features are common to expected and observed responses. In this case neither correct what is a fully acceptable substitution, semantically and syntactically. We must also consider that for the rural black and urban immigrant children, yard is a more predictable term for the setting than garden. Both are moving to sense, the Arabic subject shows considerable control of English in producing both of these miscues.

Five of the six subjects miscue on suddenly. It would be easy to say this is a hard or unusual word. But we must also consider that its occurrence in this sentence is a bit unexpected, even odd -- "suddenly wanted a drink". One subject says should, two produce non-words, one says \$suttently, a dialect equivalent in this Texas-Spanish influenced speech, and one (AP404) omits. This is a strategy the latter uses deliberately whenever he is in doubt. None correct successfully. They illustrate three strategies for dealing with problems: (1) omit; (2) produce non-words; (3) produce real words which fit some or all of the constraints.

The Texas-Spanish (TS101) and Downeast Maine (DE202) subjects both produce another miscue in the same sentence, (line 0403) a drink and ran. The verb phrase wanted a drink has been transformed from verb plus direct object noun phrase to verb plus infinitive. Both subjects also transform ran (she suddenly ...ran) to the infinitive run (she wanted to...run). A bilingual reader from Southeast Texas and a monolingual reader from Downeast Maine both processed the language in the same way. A single reading process must be at work, one they share.

Two subjects, DE202 and MB301, call Kitten, Kitty at least once. In Maine and Mississippi seven year olds tend to call kittens, kitty, and that influences their prediction, confirmation and correction strategies. It is part of their reading.

Four subjects miscue at the end of line 0405. Two insert periods; one corrects. Two shift from rose to roses and one to nose. There are miscues on the following word by three of these same four readers. A fourth reader (HP801) also miscues there. Several factors seem to be involved: Syntactic prediction of where the sentence will end. Syntactic and semantic problems with in the rose vines. What's a vine? Perhaps our Arabic subject doesn't know that English word. What's a rose vine? Perhaps other subjects, TS101, DE301, AP404, HP801 don't think of plants with roses on them as vines. Thus cognitive dissonance makes prediction and confirmation difficult.

Our DE202 and AR602 subjects omit to in to the camera, line 0406. The former corrects. The to in She walked over to the camera may surprise these readers since a double preposition is involved. Or perhaps over means over to to one or both as in Come over my house.

Two subjects, MB301 and AR602, shift from began to begin. In dealing with this irregular past both shift to simple form. For MB301 that's a dialect shift. For AR602 it may reflect lack of control over irregular verbs, a transitional stage in gaining control of English. But both went to a real form of the same verb.

On line 0407 sniff and sniffed occur. The problem may be an unfamiliar term or an unfamiliar idea (why would a kitten sniff a camera) or both. Our subjects vary in strategy: AP404 shows no miscue; AR602 produces non-words: \$swaffin, \$swaffed; DE202 tries snap for sniff and corrects; HP801 omits both; MB301 says smell, a synonym for both. The responses vary from omission to synonym substitution but all fit the model of reading we have suggested: all use available cue systems and strategies; the decision to omit represents a decision that not enough information is available to make a prediction or guess.

One subject, AP404, who did not omit sniff or sniffed, illustrates this function of omission. He omits suddenly on line 0402. On line 0408 he omits corners and thumped, both words miscued on by several others. For corners he announces "I'll skip that" and for thumped, "I'm going to get that though." Earlier he skipped Sue saying "I'll just keep on going and I'll come back to it." He gets it two lines later and then, in fact, goes back and rereads. Neither corners nor thumped ever occurs again in the story. So there is no further opportunity to "get" them.

Fur on line 0409 is the third occurrence for that word. AP404 says for the first time and then goes on after a long pause. Later he omits, saying "There's that word again." On line 0409 he says fur correctly and says "That's fur right there." His is clearly a strategy of waiting for more information before committing himself.

She sniffed at its sides and its corners, on lines 0407 and 0408 causes considerable miscuing. Here's the way each reader read it:

DE202 (no miscues)

MB301 She ^{smell} sniffed at its ^{this} / ^{at} sides and its corners.

He
 AP404 She sniffed at its / sides and at its corners.
 AR602 She ^{swaffed} sniffed at its / ^{sides & sidents} sides and at its ^{scoring} corners.
 HP801 She sniffed at its / sides and at its corners.

Getting to the meaning hers is complicated by several factors. (1) Choice of terms, sniffed and corners. (2) Strange description: what are the sides and corners of a camera? Why would anyone describe what the kitten did as sniffing at its sides and corners? TS101 goes right to camera for corners and leaves out sides. He corrects his omissions but remains convinced the camera not the corners was sniffed. MB301, getting to smell from sniffed, miscues on its twice, though she just read it and reads it and it's successfully elsewhere in the story. The at she substitutes for its is in the deep structure: she sniffed (at) its corners. AP404, AR602, and HP801 all miscue on corners, though HP corrects.

The influence of dialect and first language on these six readers tends to be minor. DE202 shows phonological influences only: garden becomes gahden, picture is a homophone for pitcher. MB301 reduces left to lef' and just to jus'. She loses an ed when she says smell for sniffed and an s in vine for vines. Her changes are both phonological and inflectional, she goes to a regularized comed for came. AP404 shows only phonological dialect in this passage. HP801 shows phonological dialect: wit/with; de/the. She also says side for sides and walk/walked, reflecting a tendency for pidgin speakers to lose inflections. In no sense does any of this suggest either differences in the reading process for any reader or "interference" of their dialects in successful comprehension.

TS101 shows some influence of Spanish phonology, but nothing else that would show first language influence per se. AR602's tendency to produce non-words may reflect both limited control of English and lack of confidence in his control: \$silen/suddenly; \$vinens/vines; \$craymer/camera; \$swaffin/sniff; \$swaffed/sniffed; \$sidents/sides; \$croring/corners. But, as shown above, these also come at points where other readers show miscues. The lack of control of English influences the effectiveness of this second-language reader but the process is the same, as her English substitutions and corrections show. Her miscues can compound on each other and cause loss of meaning as in the sentence (lines 0407-0408) where she produces three non-words.

NA504 0401

when

Then Mrs. Duck saw Little Monkey.

HS701 0401

Den Miss

Then Mrs. Duck saw Little Monkey.

NA504 0402

"Good morning," she ^{sait} said.

HS701 0402

"Good morning," she said.

NA504 0403

UC Hi
 "Hello there," said Little Monkey.

HS701 0403

How
 "Hello there," said Little Monkey.

NA504 0404

got
 "Where did you get your pretty hat?"

HS701 0404

"Where did you get your pretty hat?"

NA504 0405

And away he went for a walk.

HS701 0405

And away he went for a walk.

NA504 0406

When
 "What pretty hat? said Mr. Mrs. Duck.

HS701 0406

"What pretty hat? said Mrs. Duck.

NA504 0407

do my
 "I did not put on a hat

HS701 0407

"I did not put on a hat

NA504 0408

dis
 this morning.

HS701 0408

this morning.

NA504 0409

hou-
 My hat is at the house.

HS701 0409

da
 My hat is at the house.

Neither the NA nor the HS readers could handle the standard second grade story, S44. But examples from Two New Hats, S26, show the same reading process is at work.

Although the selected subjects are reading a less difficult story, both subjects produce only real English word substitutions. HS701 miscues on Mrs. producing Miss once and Mr. once. She says how/hello and when/what. Neither are corrected though neither are syntactically or semantically acceptable. NA504 produces when/then which he tries unsuccessfully to correct. That's his only unacceptable miscue. Others are hi/hello, my hat/a hat and take/get, all fully acceptable miscues. He produces also do/did, got/get, knew/know, all shifts of form on irregular verbs, a feature of English he does not yet control, though these very miscues show movement toward control. The child has the forms, though does not use them in accordance with English grammatical rules. Perhaps English tense is the feature not yet controlled.

The retellings of the subjects who read Kitten Jones show interesting relationships to their reading. Here are excerpts that deal specifically with the kitten and the camera. Sue turns the camera to the next picture

because she is afraid the kitten's "done something to this picture". It turns out that the kitten has taken a picture of a crow which is so sharp "you can see every feather". The picture wins first prize in the contest at Mr. Vine's candy shop.

TS101 succinctly gets to the point: "This kitten was playing with the camera and this girl caught him. He took a picture of this crow. This girl said that the kitten done something to it...broke it...or...uh...it didn't work."

DE202 substitutes snap for sniff during her reading. Earlier the story says: "Snap! Snap! Snap! they took pictures -" Here's her retelling under questioning:

S: He was playing with the camera.

R: And what happened?

S: He snapped it.

R: And then?

S: He took a picture.

R: Of what?

S: The crow standing in the garden.

R: Where was this?

S: Almost close to the garden. Sue got out there just in time to see him playing around with the camera.

R: Was there a lesson in the story?

S: Not only people can do stuff, but cats and dogs can, too.

R: Was anything funny in the story?

S: When he snapped the camera because cats can never do a thing like that and he probably just jumped right up on it and put his feet down beside it and snapped it.

MB301 understands well that the "kitten took a picture", but shifts the setting to a desk. The only related picture in the text is a small inset of a kitten laying all over an archaic box camera.

S: They had a movie can-..., camers; then they want to take...they took pictures everywhere they went and then one day the kitten was playin' with it and then...and then Susan say, "Don't play with it cause I think you, it's in bad luck."

R: How did the kitten get the picture taken?

S: By playing with it.

R: How did he play with it?

S: Jane left it on the desk and he climbed up there and got it.

AP404 provides the essence in free retelling. AP404 omits both corners and thumped in reading.

S: It was about a crow where this kitten took a picture and the woman who was taking the picture laid down her camera to get a drink of water and that's how the...that's how the kitten took the picture. It put its foot on that little thing...on the button you push down to take the pictures and it took a picture.

AR602 says cream for camera once and a non-word, \$craymer, three times. She also has all those non-words in lines 0407 and 0408, but here's her retelling:

R: Who won the prizes?

S: The kitten.

R: How come?

S: Because she took the picture of a...the feather.

R: How did that happen?

S: She was playing with the camera.

R: Where was the camera?

S: On the table.

R: Then what happened?

S: And then she took a picture of the feather.

R: Where was the feather?

S: On the bird.

R: Was the author trying to teach us a lesson?

S: He was trying to teach us to take good care of our cameras.

HP801 also has the key understanding of the kitten with the camera.

S: The kitten took pictures. The kitten took picture of rose garden. He thought the cat took the picture.

R: How did the cat take the picture?

S: He was playin' with 'im. He was laying on top of the camera.

R: Where?

- S: On the camera and scratched it. He ruin it.
- R: How could he take a picture if it was ruined?
- S: He was playin' around with the camera took plenty pictures.
- R: Why do you think it's funny?
- S: A cat isn't suppose to.
- R: What?
- S: Funny the cat can take a picture he was scratching a button.

With widely different language backgrounds these readers all are using a common reading process to make sense of what they read. All use the print but none are bound to it. All predict syntax though some show incomplete control of it. All move to meaning though the process is constructive and is not limited to cues the text itself provides. The experiences and concepts of the readers themselves are much involved.

The unitary nature of the reading process is also illustrated by the older readers in this study. In Chapters V and VI, we discuss one fourth grader in each group in depth so we'll look here at one sixth grader from each group reading a key section from the standard story, S53, My Brother Is A Genius. (Typescripts follow the discussion at the end of this chapter.)

As with the second graders there are some points where most of the readers miscue.

Mr. Barnaby, who is a main character in the story, has a name which produces these variations: DE230 dialect variant Ba'naby; AR422 Brandon; TS123 Barley, Bartley; NA525 Barn-bye, Barnbaby, Barna-bye; HS729 \$Barbad, \$Barbady, \$Barb, Barby.

0506 Mr. Barnaby stopped pacing		0513 pacing
Dialect Groups		
DE230	©shopped (uc)picking	picking, pecking ©
AP422	picking	©
MB328	patching	patching
Second Language Groups		
NA525	\$pezzing	playing
HS729	©	picking
AR623	packing	packing
TS123	said praise	1.\$practly 2.practicing

Only two subjects (HP826 and HS729) do not miscue on pacing the first time it occurs and one of those, HS729, goes to picking on the second occurrence. Two of the dialect readers, DE230 and AP422, correct the second occurrence; two of the second language speakers make better miscues the second time compared to the first: TS123 goes from said praise to stopped practicing, NA525 goes from \$pezzing to playing.

Pacing seems to be an unfamiliar concept here though a strong movement toward meaning shows.

That Mr. Barnaby was pacing is a minor detail in the story. General success in comprehension doesn't depend on it. The same is true of advertise on line 0504. It is a minor detail to lose.

0504-5 the things you advertise on your/station

Dialect Groups

DE230	advertised	with
AP422	ad+wise	
MB328	adverse	to the
HP826		and

Second Language Groups

NA525	\$advert	
HS729	exchange	for you
AR623	ad-\$adverz	
TS123	\$ad-,advance	

Only HP826 makes no miscue on advertise. DE230 goes to an acceptable past tense. The others either search for real words (AP422, MB328, HS525 and TS123) or produce phonically and graphically related non-words (NA623, AR729). Several produce miscues on the words that follow advertise: perhaps advertised on is unfamiliar. It is too bad that the author didn't say ads or commercials, more familiar ways of discussing T.V. advertisements. This illustrates the issue of predictability. The subjects tend to find this phrase unpredictable and search for meaningful possibilities. Some are more successful than others. Those who settle for non-words are less successful while those who get it right are more successful. Others are in-between; but all have available and use the same cues and the same strategies. HS525, though shifting meaning, uses better strategies than those who produce non-words. She tries for sense. But, as we've said, advertise is not an important matter in this story. Neither is imperil our good will (line 0507) which all eight miscue on. That's there more to convey Mr. Barnaby's pomposity than to provide important specific information.

All our subjects show, in their miscues in line 0507, integrated use of the three cue systems.

0507

"wouldn't want to imperil our good will."

Dialect Groups

DE230	Ⓒ won't	\$impervile your	
AP422		\$impearl	
MB328		impair	win
HP826		imperial	

Second Language Groups

NA525	Ⓒ would	\$impiril	
HS729	Ⓒ won't	\$impuve	a
AR623		imperial, \$impril	
TS123	Ⓒ won't	impress	

Here three subjects go to won't for wouldn't. All correct. Won't and wouldn't in this context have graphic, phonemic, semantic and syntactic features in common. NA525 shifts to would. That may reflect some problem with English negation as we found in the Navajo second graders, though she has no similar miscues in the rest of the story.

All of these subjects produce phonic near-misses for imperial, an unimportant term obviously not familiar to them. Three go to real words, five to non-words. Neither strategy solves the problem and only one subject makes a second attempt. Two of the subjects miscue on our. DE230's your substitution employs cues from syntactic, semantic, and graphophonic systems. HS729 supplies the noun marker a which has only syntactic relationship to your.

In this sentence, we must be impressed not only with what is happening, but also with what isn't. Wouldn't is replaced by won't; Want, (the word following wouldn't) closer graphically to won't, is not replaced by won't.

Further, all eight subjects are reacting to this sentence as English discourse, not as a set of discrete word.

They are using what they know about English and the world in reading. We should not be surprised that HP826 substitutes win for will. In the prior paragraph winning a contest is discussed. That's predictable, perhaps more so than will used as a noun in an idiom "good will". None of our subjects look like they are responding to an unknown language, even in this strange sentence.

An important concept in the story is that a T.V. program will feature a typical baby; it turns out in the story that the baby is not typical at all since he can say words like philosophical.

Here are the miscues our readers produce in the passage that involves typical (see marked miscues at end of this chapter).

	0513	0514	0522a	0522b	0522c	0523
DE230	ok	ok	tip, \$typcal	ok	ok	ok
AP422	typ-	omit	ok	ok	ok	ok
MB328	\$typecal	\$typea	\$typecal	\$typecal	\$typecal	\$typecal
HP826	ok	ok	ok	ok	ok	ok
NA525	\$tysical, type-	\$tysical	tricycle	tricycle	tricycle	tricycle
HS729	\$trista	\$typlin	\$trops	\$tropiset	tropic	tropic
AR623	\$typeisal, \$typeisal	omit	\$typeical	\$typeical	omit	pa- \$typeical
TS123	\$typilal	\$typilal	\$typeical	\$typeical	\$typilal	\$typilal

Our dialect group readers are more successful than our second language readers in getting typical right. But that doesn't assure that they've understood the concept. Neither can we assume that those who don't pronounce it correctly have not built the concept by the end of the story. Typical occurs seven more times after this section.

The acquisition of this concept of typical is discussed in Chapter VII. All of these subjects had some concept of what was involved: a baby that was smart, did unusual things and was not ordinary. Some of them understand that typical means "plain, not odd" (AP422), "regular" (MB328), "not the type of -- a different kind of baby" (AR623), "ordinary" (HP826), "normal" (DE230). All understand that the baby was smart and that was shown by his precocious talking. Often they cite their own knowledge of babies:

TS123 says, "He was a \$typeical baby" (at the beginning). "He would cry alot of the time."

MB328 states, "He was talking like somebody grown. He wasn't talking like a baby."

AP422 has this interaction:

S: Well, he was calling off all sorts of words from the dictionary.

R: Is that usual?

S: No, not for an eight month old baby.

Though NA525 doesn't volunteer information from her background, it shows in this sequence from her retelling:

- R: Do you have any babies at home?
- S: Yes.
- R: Did this baby act like all the babies you know?
- S: No.
- R: How did this baby act different?
- S: Talked.
- R: How old was this baby?
- S: Eight months.
- R: Do babies talk at eight months?
- S: No.

Similarly HS729 uses his knowledge of babies to infer:

- R: What kind of baby was he?
- S: Smart.
- R: Why?
- S: Because he could speak when he's eight months old.

Our second language subjects show some evidence of influence from their first languages and of their incomplete development in English in this excerpt, but sometimes this shows as inflexible formalism. NA525 says he'd in 0509, he'd do, and then rereads: he would do, going to a more formal alternative. TS123 says You might be right for You may be right. He prefers A baby like anyone else baby to the original: A baby like everyone else's baby. AR623 says but he is for but he's, he also says in the town for in town. HS729 says it will a living show, living, boy, living substituting living for live three times (0509).

This unusual text sequence is representative of a conversational style which we might have expected to be problematic for our subjects. It combines an idiom with a homograph in a strang syntax.

Among the other second language subjects AR623 handles it this way:

0519 it will be ^{alive} a live show. Live ^{baby} boy live.

He's shown a tendency to intermix boy with baby since both are in the story. His alive for live is a shift toward a more literal use of live here used as an idiom to contrast with filmed or taped.

TS123 and NA525 both go to live, a rhyme with give, in all three instances. That means the meaning of the idiom may be lost to them though they may still be getting the idea of the conversational style of Mr. Barnaby.

Of our four dialect speakers, only MB328 has no trouble here. AP422 goes to living for the last instance, but then corrects. DE230 says live correctly the first two times, but then moves to live abandoning the correct form and staying with live for the third instance. HP826 starts with live, but then shifts to the correct homograph.

What this example shows is how our readers' backgrounds enter into their coping with general problems, but only in minor ways. Their miscues are more likely to reflect their inability to assign a surface or deep syntactic structure and make sense of the sequence than they are to cause the loss of meaning and deep structure.

No phonic strategy can solve this comprehension problem. To choose between live and live requires a deep structure and meaning. So two subjects actually shift to living, which is more literally appropriate to the meaning, though graphically farther away. The miscues do not cause the comprehension problems; they result from them.

Few direct dialect influences show in this excerpt although some shifts of prepositions may relate to dialect.

HS729 produces these:

0504 ^{for you}
on your

0511 he's going ^{to} on nine.

She also produces, in line 0504, a use of never characteristic of Pidgin:

might even refuse

HP828 deletes a possessive s:

0514 everyone else's baby

And a past morpheme:

0520 I asked.

MB328 has a be form deletion:

0517 ^{and he}
when he's at his best

She also produced say for said in 0506, and baby for babies in in 0503.

Besides these examples, only phonological dialect influences show in this excerpt.

Conclusion

Nothing that we see these sixth grade subjects do as they read, or that the second grade subjects do, or that the fourth graders we examine in detail in Chapters V and VI do or that any of our 96 subjects do on either story they are asked to read contradicts the theoretical model we stipulate in Chapter II. But further, it isn't possible to see the order and harmony in the apparent diversity these readers produce unless one relates it to our primary conclusion: there is a single reading process which underlies all reading at all stages of development.

Proficiency: the degree to which this process is controlled will show in the miscues of readers. But the unitary process puts strong constraints on how the relative proficiency can affect the process. Some miscues can happen and some can't. Some could happen but rarely do. Some are so highly likely they're predictable, both in form and frequency.

Similarly, the dialect of any reader whose first language is English can only effect his/her reading in ways that the psycholinguistic process permits. These same parameters limit the ways that first language influences and lack of receptive and productive control of English can enter into the reading process.

Dialect differences between reader and text theoretically could be so great that the reading would become unproductive. Our study shows no evidence that that condition exists. All four groups show considerable receptive control of the dialect(s) they are reading. Their dialect shows, but it is not in itself a barrier to comprehension or learning to read.

Among our second language readers we can see the effects of varying stages in control of English on our subjects' reading. But we can also see that subjects need not be totally proficient in both productive and receptive English to learn to read English and to get considerable meaning from their reading. The language limitations interact with cultural and experiential factors and all may effect reading. One cannot read an unknown language. But as the language becomes known, speaking or writing, reading or listening involve the graphophonic, syntactic, semantic systems, the strategies of sampling, predicting, confirming, correcting, the sensory to perceptual to syntactic, to semantic cycles. These are at work even as language control develops. In fact, we learn language through using it. So we see our second language readers learning English as they read it. It doesn't surprise us that they can sometimes comprehend what they cannot yet express. It doesn't surprise us that they shift away from English syntax in retellings, or that they miss subtlety and idiom sometimes.

The lesson of our study for teachers and curriculum planners is a simple one. Whatever the language base of learners, their progress in learning to read English can be monitored through their miscues. Sensitivity to their language, where it is and where it's coming from will help teachers as they monitor reading to see both how well readers control English and how proficient they are as readers.

0510

"How old ^{is} he?"

0511

"Eight months," I said. "But he's going on nine."

0512

Hum "Hmmm," said ^{Mr.} Bartley Barnaby, ^{Let's him} "Let me ^{see} now." ^{He was}

0513

^{practicing} ^{practically} ^{de} ^{typical} ^{Dats}
pacing the floor again. "The typical baby. That's it."

0514

^{Typical} Typical! A baby like ^{everyone} everyone else's ^{ba-} baby. A baby

0515

everyone will love. An excellent idea!"

0516

"Sure," I said. ^{would} "We could take some moving pictures

0517

of him when he's at ^{de} ^{be-} his best."

0518

"Nonsense," ^{my} ^{baby} Mr. Barnaby said. ^{Bartley} "If we do this

0519

it will be a live show. ^{Live} ^{live} Live, boy live!"

0520

"But what if he ^{he's} cries ^{on} or something?" I asked

0521

"All babies cry," ^{and} ^{Bartley} said Mr. Barnaby. ^{He would} "He wouldn't be

0522

^{typical} ^{is} typical if he didn't cry ^{something} sometimes. ^{Typical} ^{dats} ^{is} ^{typical} Typical, that's it, typical.

0523

^{typical} ^{is-} The typical baby!"

SECTION FROM MY BROTHER IS A GENIUS

read by DE230

0412

^{Bahnaby}^(d)
Mr. Barnaby was impressed. "Hmmm," he said, "you

0413 may have an ^{idea}^(d) of value." He walked ^{a-}^(c) around the office,

0414 thinking. "Yes. We could have a contest and pick a baby

0415 out of all the babies in town."

0501 "Excuse me, sir." I said, "but I think it would be ^{bettah}^(d) better

0502 not to have a contest. If you have a contest, then all the

0503 ^{mothahs}^(d) ^{wh-}^(c) mothers whose babies don't win will be mad at you. ^{Then}^(d) They

0504 ^(c) mi-might even refuse to buy the things you ^{advertised} advertise on your

0505 station."

0506 ^{Mistah}^(d) ^{Bahnaby}^(d) ^(c) shopped ^(d) picking
Mr. Barnaby stopped pacing. "Hmmm," he said. "You

0507 may be right. ^(c) ^(d) Wont ^(d) Wouldn't want to ^{impervile your} imperil our good will."

0508 "And so you could just pick my little ^{brothah}^(d) brother," I said.

0509 "He'd do just as well as anyone else his age."

0510

(C) ⁰⁻
 "How old is he?"

0511

"Eight months," I said. "But he's going on nine."

0512

Barnaby^(d)
 "Hmmm," said Mr. Barnaby, "Let me ^(C) see now." He was

0513

(C)
 2. pecking
 1. picking
 pacing

the floor again. ^(S) The typical baby. That's it.

0514

Typical! A baby like everyone else's baby. A baby

0515

everyone will love. An ^(C) ^{e-} ^{idea^(d)} excellent idea!"

0516

"Sure," I said. "We could take some moving ^(d) pictures

0517

of him when he's at his best."

0518

^(RS) "Nonsense, my boy," Mr. Barnaby^(d) said. "If we do this

0519

it will be a ^(C) ^{li-} live show. ^(AC) Live baby live.
 Live, boy live!"

0520

"But what if he cries or something?" I asked.

0521

Barnaby^(d)
 "All babies cry." said Mr. Barnaby. "He ^{could} wouldn't be

0522

typical if ^{you don't} he didn't cry ^(C) ^{some-} sometimes. ^(C) Tip
 Typical, that's it, typical.

0523

The typical baby!"

SECTION FROM MY BROTHER IS A GENIUS

read by MB328

0412 Mr. Barnaby was ^{impress}impressed. "Hmmm," he said, "you
 0413 may have an idea of value." He walked around the office,
 0414 thinking. "Yes. We could have a contest and pick a baby
 0415 out of all the babies in town."

0501 "Excuse me, sir." I said, "but I think it would be better
 0502 not to have a contest. If you have a contest, then all the
 0503 mothers whose ^{baby}babies don't win will be mad at you. They
 0504 might even refuse to buy the things you ^{adverse to the}advertise on your
 0505 station."

0506 Mr. Barnaby stopped ^{patching}pacing. "Hmmm," he ^{say}said. "You
 0507 may be right. Wouldn't want to ^{impair}imperial ^{win}our good will."

0508 "And so you could just pick my little brother," I said.

0509 ^{He'll}"He'd do just as well as anyone else his age."

0510 "How old is he?"

0511 "Eight months," I said. "But he's going on nine."

0512 "Hmmm," said Mr. Barnaby, "Let me see now." He ^{is} was

0513 ^{patching} pacing the floor again ^{*typical} "The typical baby. That's ^{is} it"

0514 ^{*typea} Typical! A baby like everyone else's (baby) A baby

0515 everyone will love. An excellent idea!"

0516 "Sure," I said. ^{He} "We could take some moving pictures

0517 of him when he's ^{and he} [©] set the best at his best."

0518 "Nonsense, my boy," Mr. Barnaby said. "If we do this

0519 it will be a live show. Live, boy live!"

0520 "But what [©] the if he cries or something?" I asked.

0521 ^{baby} "All babies cry." said Mr. Barnaby. ^{would} "He wouldn't be

0522 ^{typical} typical [©] if he didn't cry sometimes. ^{something} Typical ^{is} is ^{*typical} typical, that's it, typical.

0523 ^{*typical} (The) typical baby!"

0510 "How old is he?"

0511 "Eight months," I said. "But ^{he is} he's going on nine."

0512 "Hmmm," ^{Brandon} said Mr. Barnaby, ^(C) "let's ^(C) you now ^(C) s-
^(C) "Let me see ^(C) now." He was

0513 pacing the floor again. "The ^(C) ^{typ} typical baby. That's it.

0514 Typical! A baby like everyone else's baby. A baby

0515 everyone will love. An excellent idea!"

0516 "Sure," I said. "We could take ^{more} some moving pictures

0517 of him when ^(R) he's at his best."

0518 "Nonsense, my ^{brother} boy," Mr. Barnaby said. ^{Brandon} "If ^{we're doing} we do this

0519 ^{he} it will be a live show. ^(C) ^(R) ^{living} ^{pr-} Live, boy live!"

0520 "But what if he cries or something?" I asked.

0521 "All babies cry." ^{Brandon} said Mr. Barnaby. ^(C) ^{wasn't} "He wouldn't be

0522 typical if he didn't cry sometimes. Typical, ^(C) that's it, typical.

0523 The typical baby!"

SECTION FROM MY BROTHER IS A GENIUS

read by NAS25

0412 ^{*Barn-by} ^{*impresseded} ^{umm}
Mr. Barnaby was impressed. "Hmmm," he said, "you

0413 ^(C) ^{ha-} ^a ^(RS) ^{*valet}
may have an idea of value." He walked around the office, ^{de} ^(d)

0414 thinking. "Yes. We could have a contest ^(C) ^{to} and pick a baby

0415 ^(C)
out of all the babies in town."

0501 ^{Excuse} ^(d)
"Excuse me, sir." I said, "but I think it would be better

0502 ^(C) ^(RS) ^(AC)
not to have a contest. If you have a contest, then all ^{of} ^{the}

0503 mothers whose babies ^{baby} ^{wouldn't} ^{would} win will be mad at you. They

0504 might even refuse to buy the things you ^{*advert} advertise on your

0505 station."

0506 ^{*Barn-by} ^{*pacing} ^(UC) ^{umm}
Mr. Barnaby stopped pacing. "Hmmm," he said. "You

0507 may be right. ^(UC) ^{would} ^{*impiril}
Wouldn't want to imperil our good will."

0508 ^(UC) ^(C)
"And ^{So} ^{help} so you could just pick my little brother," I said.

0509 ^(AC) ^{He would}
"He'd do just as well as anyone else his age."

0510 "How old is he?"

0511 "Eight ^{months} months," I said. "But he's going on nine."

0512 ^{Umm} "Hmmm," said Mr. Barnaby, "Let me see now." He was

0513 ^{playing} pacing the floor again. "The ^{typical} ^{typical} ^{typical} baby. That's it.

0514 ^{Typical} Typical! A baby like everyone else's baby. A baby

0515 ^C ^{else} everyone will love. ^{RS} ^{excited} An excellent idea!"

0516 "Sure," I said. "We could take ^{have} ^C some moving pictures

0517 of him when he's at his best."

0518 ^{nonsent} "Nonsense, my boy," Mr. Barnaby said. "If we do this ^{dis}

0519 ^C ^I it will be a live show. ^{I've} Live, boy ^{Live} live!"

0520 "But what if he cries or something?" I asked.

0521 "All babies cry." said Mr. Barnaby. "He wouldn't be

0522 ^{tricycle} typical if he didn't cry sometimes. ^{Tricycle} ^{ats} ^{tricycle} Typical, that's it, typical.

0523 ^{tricycle} The typical baby!"

0510 "How old is he?"

0511 "Eight months," I said. "But he's going on nine." ^{he is mine}

0512 "Hmmm," said Mr. Barnaby, "Let me see now." ^{UC} He was

0513 packing pacing the floor again. "The ^{UC} ~~typical~~ ^{typical} baby. That's it."

0514 Typical! A baby like everyone else's baby. A baby

0515 ^{AC} Everyone will love ^{an} An excellent idea!"

0516 "Sure," I said. "We could take some ^C ^{a movie} ^{imo-} moving pictures ^{would}

0517 of him when he's at his best. ^{the} "

0518 ^{UC} "Nonsense," ^C My ^C ba- ^C boy," ^C ^{said} Mr. Barnaby ^{said} said. "If we do this

0519 it will be a ^{alive} live show. ^{baby} Live, boy live!"

0520 ^{Put that} "But what if he cries or something?" I asked.

0521 "All babies cry." ^{won't} said Mr. Barnaby. "He wouldn't be

0522 ^C ^{* typical} ^{of the} typical ^{* Typical} if he didn't cry sometimes. Typical, that's it, typical

0523 ^{UC} ^{* typical} ^{pa-} The typical baby!"

SECTION FROM MY BROTHER IS A GENIUS

read by HS729

- 0412 ^{*Barbad} ^{*inspired} Mr. Barnaby was impressed. "Hmmm," he said, ^{RS} "you
- 0413 may have an idea of value." ^{for vale} He walked around the office,
- 0414 thinking? ^{Yes}. We could have a contest and pick a baby
- 0415 out ^{for} of all the babies in town."
- 0501 ^C Ex-u-^{RS} "Excuse me, ^C sir." ^{he} I said, ^{tink} "but I think it would be better
- 0502 not to have ^C ^a ^{con-} contest. If you have a contest, then all the
- 0503 mothers ^C ^{a-} whose babies don't win will be mad at you. ^{RS} They
- 0504 might ^{never} even refuse to buy the things you ^{exchange for you} advertise on your
- 0505 station."
- 0506 ^{*Barbady} Mr. Barnaby stopped pacing. "Hmmm," he said. "You
- 0507 may be right. ^C ^{Won't} ^{*improve a} ^{well} ^d ^{Wouldn't} want to imperil our good will."
- 0508 "And so you could just ^C ^{out} pick my little brother," I said.
- 0509 ^C ^{He} ^{did} "He'd ^{easy} do just as well as anyone else his age."

0510 "How old is he?"

0511 "Eight months," I said. "But he's going ^{to} on nine."

0512 ^{*Barb} "Hmmm," said Mr. Barnaby, "Let me see now." He was

0513 ^{picking} ^(B) ^{*trista} pacing the floor again. "The typical baby. That's it."

0514 ^{*Typlin} Typical! A baby like everyone else's baby. A baby ^{easy}

0515 ^{anyone} everyone will love. ^{extremely} An excellent idea!"

0516 "Sure," I said. ^{He} "We could take ^(C) ^{someone} some moving pictures

0517 of him when he's ^(C) ^{it} at his best."

0518 "Nonsense, my boy," ^{*Barby} Mr. Barnaby said. ^{you} "If we do this

0519 it will be a ^{living} live show. ^{Living} Live, ^{living} boy live."

0520 "But what if he cries or something?" ^(d) I asked.

0521 "All babies cry." ^(C) ^{Mrs. I.B-} ^{2. Barby} ^(C) ^{would} said Mr. Barnaby. "He wouldn't be

0522 ^{*tropes} typical if he didn't cry sometimes. ^{*Tropiset} Typical, that's it, ^{tropic} typical.

0523 ^(C) ^{tropic} The typical bill baby!"

SECTION FROM MY BROTHER IS A GENIUS

read by HP826

0412 Mr. Barnaby ^(C) expressed was impressed. "Hmmm," he said, "you
 0413 may have an idea of value." He walked around the office,
 0414 thinking. "Yes. We could have a contest and pick a baby
 0415 out of all the babies in town."
 0501 "Excuse me, sir." I said, "but I ^{think} ^(d) it would be better
 0502 not to have a contest. If you have a contest, ^{then} ^(d) all the
 0503 mothers whose babies don't win will be mad at you. They
 0504 might even refuse to buy the ^{things} ^(d) you advertise ^{and} ^(C) on your
 0505 station."
 0506 Mr. Barnaby stopped pacing. "Hmmm," he said. "You
 0507 may be right. ^(RS) Wouldn't want to ^{imperial} imperil our good will."
 0508 ^(RS) "And so you could just pick my little brother," ^(C) I said. ^{hes-}
 0509 ^(RS) "He'd do just as well as anyone else his age."

0510 "How old is he?"

0511 "Eight months," I said. "But he's going on nine."

0512 "Hmmm," said Mr. Barnaby, "Let me see now." ^I He was

0513 pacing the floor again. ^(RS) "The typical baby. That's it.

0514 Typical! A baby like everyone else ^a ^s baby. A baby

0515 everyone will love. An excellent idea!"

0516 "Sure," I said. "We could take some moving pictures

0517 of him when he's at his best."

0518 "Nonsense, my boy," Mr. Barnaby said. "If we do this

0519 it will be a ^{live} live show. Live, boy live!"

0520 "But what if he cries ^c ^{s-} ^a or something?" I asked.

0521 "All babies cry," said Mr. Barnaby. "He wouldn't be

0522 typical ^c ^(RS) ^{couldn't try} if he didn't cry sometimes. Typical, that's it, typical.

0523 The typical baby!"

CHAPTER IV

ASPECTS OF READING: GENERAL INSIGHTS

Part I - Quantity and Quality of Miscues

Our measure of quantity in miscue analysis is Miscues Per Hundred Words (MPHW). We measure quality by the comprehending score, the percent of miscues either semantically acceptable before correction or unacceptable but corrected. Finally, we use Residual Miscues Per Hundred Words (RMPHW) as a combined qualitative-quantitative measure. RMPHW is the remainder of the semantically unacceptable and uncorrected miscues.

Figures 4-1, 4-2, and 4-3 show the distribution of Total MPHW for each group. The top portion of each bar represents dialect MPHW. The rest of each bar represents non-dialect MPHW. From here on in this report, when we discuss MPHW we will mean non-dialect MPHW, unless otherwise stated. That's because we assume, based on earlier research, that dialect miscues have no effect on comprehension. Non-dialect MPHW are divided between the comprehending portion (those semantically acceptable or corrected) - (indicated by a blank area on the bar) and residual MPHW (bottom portion on each bar).

Our groups range from below 7 MPHW (Downeast Maine and Texas Spanish second graders and fourth graders on one story each) to almost 20 MPHW (Appalachian White second graders on one story).

Mean for all second graders is 12.6 MPHW for Kitten Jones, story 44, the standard story (6 groups), and 11 MPHW for all readings.

Fourth graders have mean MPHW of almost 10 for Freddie Miller, Scientist, Story 51, the standard story, and 9.3 for all readings. Sixth graders have a mean of 9.6 on Story 53, the standard story and 10 on all readings.

In almost all groups residual MPHW rate is half or less than half of MPHW. That means comprehending scores tend to be above 50%. That in itself is a demonstration of the fact that all groups at all grade levels in this study are using the reading process to seek meaning with at least moderate proficiency. We can look at the residual MPHW, ranging up to or near 10 for AP2, MB2, NA4, and AR6, as a sign of considerable loss of meaning. But that shouldn't cause us to lose sight of the strength implicit in how many miscues are meaningful or corrected.

Mean residual MPHW for second grade groups is 5.6 on the standard story and 4.9 on all stories. Among fourth grade groups the residual MPHW is 4.7 for the standard story and 4.3 for all stories. Sixth graders show 4.5 for both.

Figure 4-1

Miscues Per Hundred Words:
Distribution for Second Grade Group

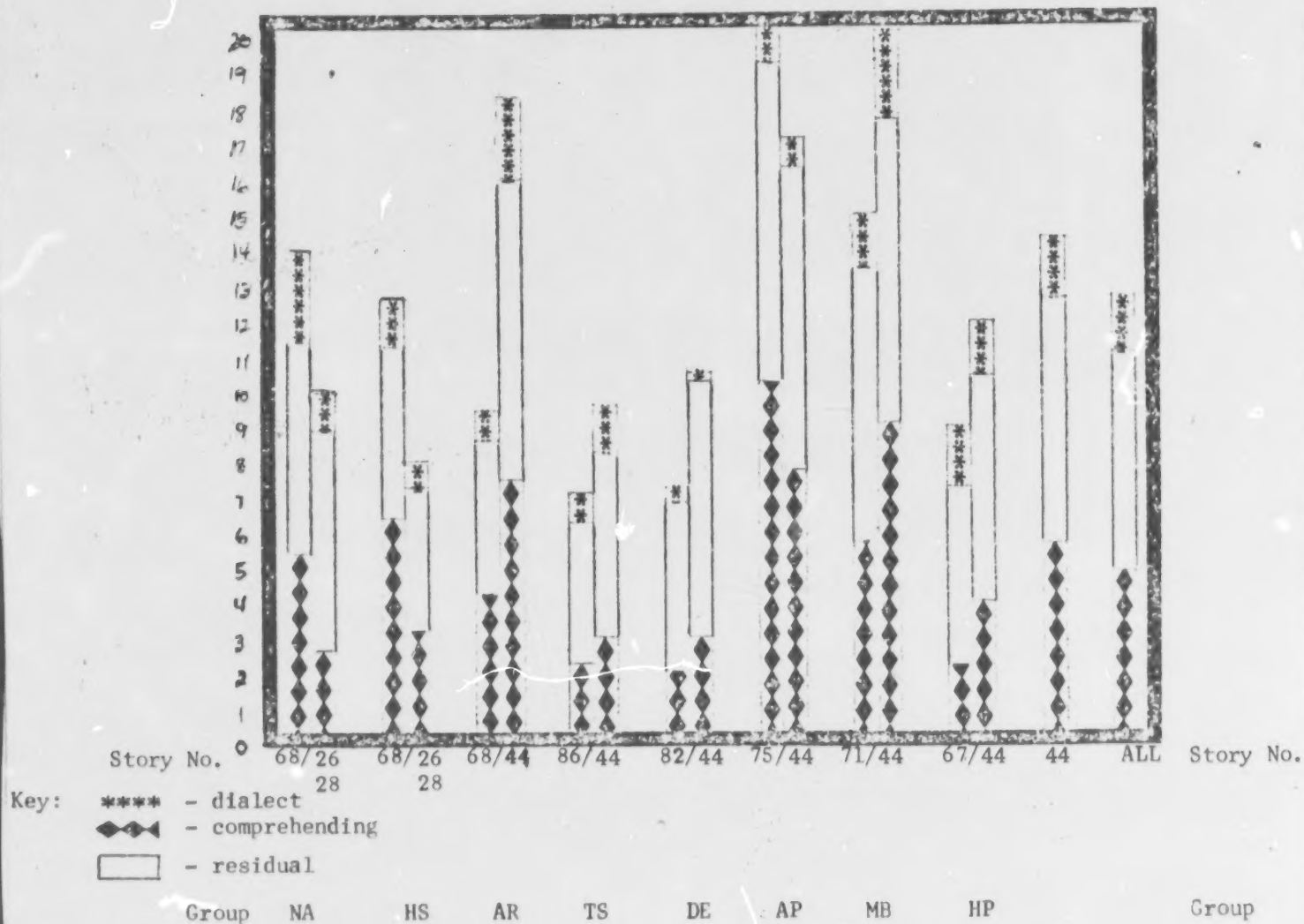


Figure 4-2

Miscues Per Hundred Words
Distribution for Fourth Grade Group

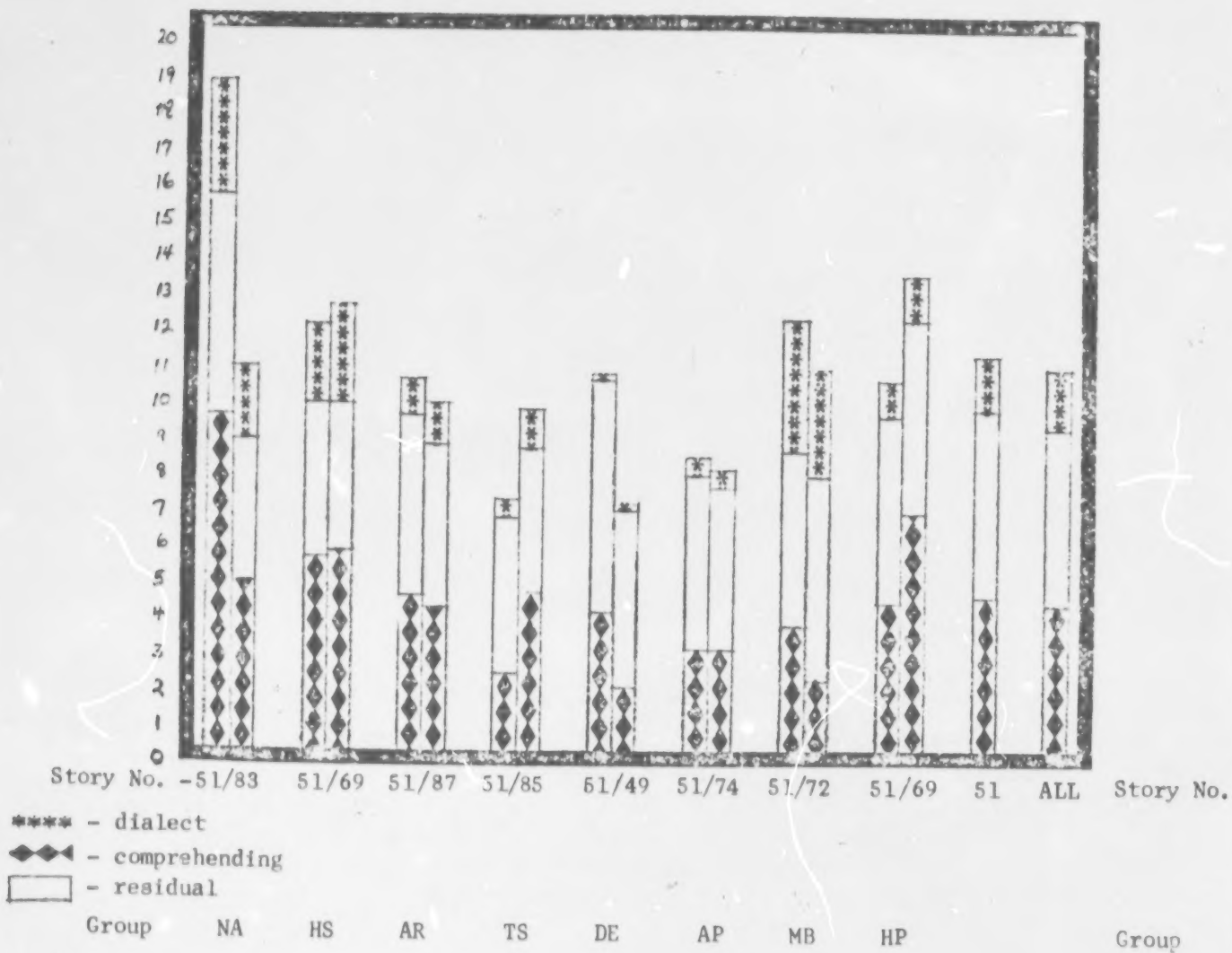
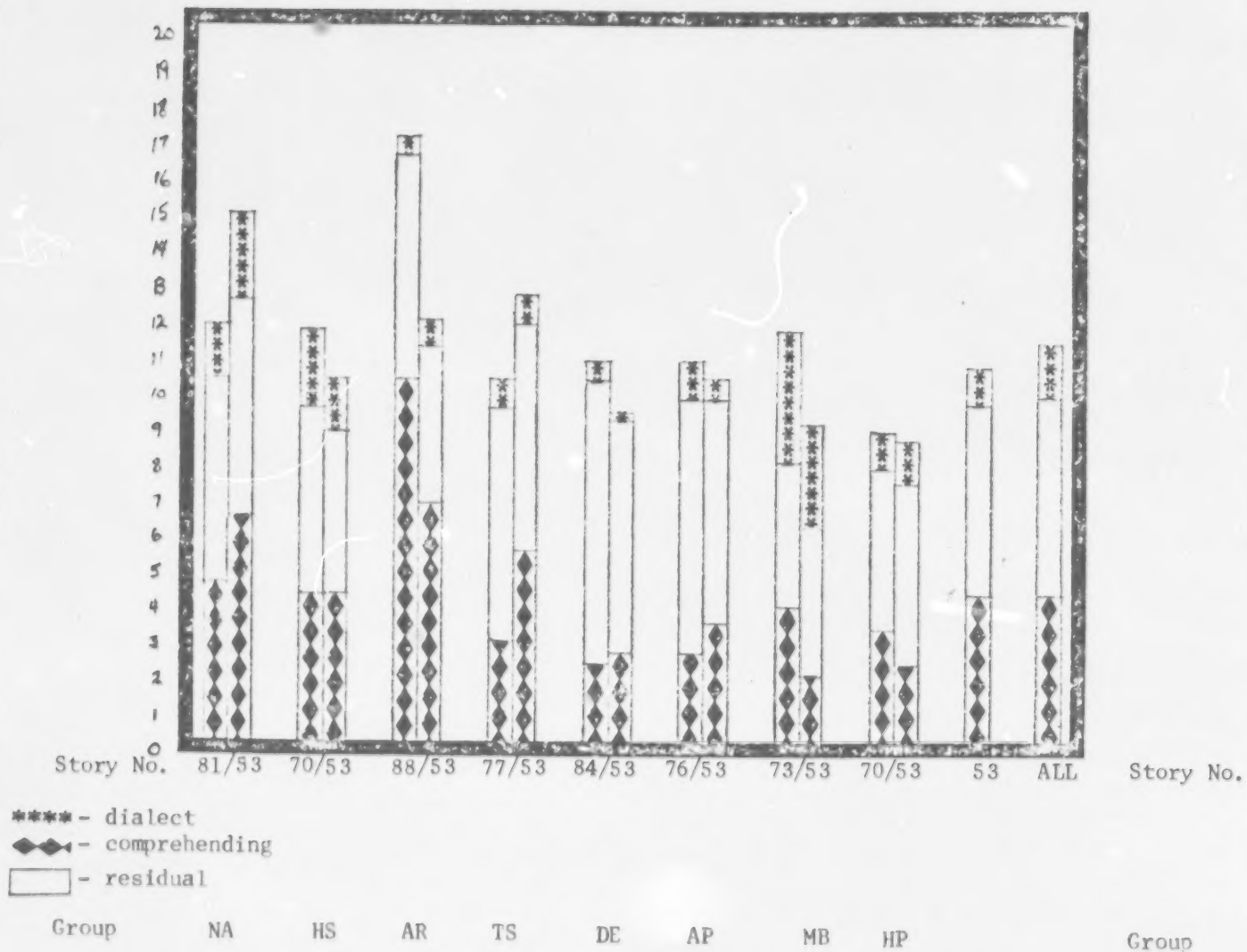


Figure 4-3

Miscues Per Hundred Words:
Distribution for Sixth Grade Group



Second Grade

Groups reading the same story show variability in MPHw. On story 44, Mississippi Black second graders have 17.7 MPHw, much higher than the 13.5 they have on Clever Turtle (story 71) their relevant story. AP second graders have 16.4 MPHw on story 44, but that is less than the 19.3 they have on their relevant story, Sweet Patootie Doll (story 75). Arabic second graders have 16 MPHw on story 44, but that is way above the 8.6 they show on Henry's Choice (story 68). DE and Hawaiian Pidgin readers both have about 10.5 MPHw on story 44. Each has lower MPHw on the relevant story: HP, 7.3 on Ah See (story 67); DE about 7 on Sky Dog (story 82). TS second grade readers have lower MPHw, 6.8, on their relevant story than the 8.6 they have on story 44. Two groups were unable to handle the standard story, number 44, so they read two primer stories instead. Hawaiian Samoan readers have 7.3 MPHw, while Navajos have about 9. But both have about 11 MPHw on Henry's Choice, also read by the Arabic readers, but with fewer MPHw.

On a purely quantitative basis, second grade groups seem to vary considerably in their relative ability to handle story 44 and, by inference, the other stories. Four groups have higher MPHw on 44 than the relevant story and two had lower.

Table 4-1

Quantity and Quality: Ranks for Second Grade Group

Standard Story #44***					Culturally Relevant Stories				
Group	MPHW Rank	% Comprehending Rank		RMPHW Rank		% Comprehending Rank		RMPHW Rank	
TS	1	66.8	2	2.97	1	64.4	3	2.25	2
DE	2	71.8	1	3.05	2	73	1	2.04	1
HP	3	63.3	3	4.13	3	71	2	2.48	3
AR	4	52	5	7.63	4	59**	5	3.44	4
AP	5	56.7	4	7.84	5	46.2	7	10.35	8
MB	6	50	6	8.7	6	58	6	5.8	6
*HS	7				8	43.8**	8	6.4	7
*NA	8				7	60.3**	4	5.51	5
Mean				5.72				4.79	

* Did not read story #44; ranked by scores on stories 26 and 28.

** Culturally relevant story #68 read by all three groups.

*** Kitten Jones

Table 4-1 shows second grade groups ranked by quantity on the standard story from lowest MPHw to highest. However, if we consider comprehending percent, the DE group shows a higher figure than the TS group and the AP percent is higher than the AR. When Residual MPHw is ranked, the ranking holds except that TS and DE groups have virtually equal RMPHW and AR and AP groups are only .2 apart. NA readers have higher comprehending percents and lower MPHw than HS.

Both have lower RMPHW (2.59 and 3.2) on the primer stories (26 and 28) than the culturally relevant story they read. They also have higher comprehending percents (70.8 and 56.5%) on the standard story. These figures show that not only did miscues drop in quantity on the apparently easier story but quality of miscues also improved.

Of the five groups that show higher MPHw on Story 44, all had higher comprehending percents and lower residual MPHw on the second story, except TS which had a lower comprehending percent, but also a lower residual MPHw.

The AP group shows lower comprehending rate and higher RMPHW on the culturally relevant story in which they also show a higher MPHw.

Fourth Grade

The fourth graders vary considerably in MPHw on story 51. But unlike the second graders, four groups produced about the same MPHw in both stories. Two groups produce more MPHw on the standard story (51). Two groups have lower MPHw on it.

Table 4-2

Quantity and Quality: Ranks for Fourth Grade Group

Standard Story #51*					Culturally Relevant Stories				
Group	MPHW Rank	% Comprehending Rank		RMPHW Rank		% Comprehending Rank		RMPHW Rank	
TS	1	58.0	4	2.48	1	47	6	4.8	5
AP	2	61.6	2	3.17	2	60.1	3	3.16	3
MB	3	63.9	1	3.76	3	74.6	1	2.15	2
AR	4	51.8	6	4.7	6	50.8	4	4.4	4
HP	5	53.9	5	4.6	5	47.3	5	6.98	8
HS	6	44.4	7	5.78	7	41.9	8	5.84	7
DE	7	58.4	3	4.56	4	71.4	2	2.02	1
NA	8	40.1	8	9.06	8	46.8	7	4.98	6
Mean				4.76				4.29	

* Freddie Miller, Scientist

There is not a consistent relationship between rank in MPHW on the standard story and percent of comprehending. The DE group stands out since its 58.4% is third but in MPHW it ranks seventh. But other groups are out of rank too. In RMPHW, the rankings are more comparable to MPHW ranks except for the DE group which here ranks fourth.

Looking at the two groups that have lower MPHW for story 51 than the culturally relevant one, we see that the TS and HP groups also have lower comprehending and higher RMPHW on these stories.

The two groups, DE and NA, which have higher MPHW for story 51 than their alternate, both have higher comprehending scores and much lower residual MPHW on the alternate stories. Those results follow the strong patterns set in the second grade groups.

Of the four groups with similar MPHW for both stories, three, AP, AR and HS show very similar comprehending scores and residual MPHW for both stories. Only the MB group breaks this pattern. Their comprehending percent is much higher on the culturally relevant story and residual MPHW is notably lower. This is an exception worth noting since it may reflect the extremely relevant nature of the content of the particular story, Little Brown Hen, for these rural black subjects.

Sixth Grade

Among sixth grade groups performance on the standard story (53) varies moderately. Here two groups have higher MPHW on story 53, three groups have lower MPHW on it and three groups have about the same MPHW on both stories.

Table 4-3

Quantity and Quality: Ranks for Sixth Grade Group

Standard Story #53*					Culturally Relevant Stories				
Group	MPHW Rank	% Comprehending Rank		RMPHW Rank		% Comprehending Rank		RMPHW Rank	
MB	1	55.1	4	2.2	1	51.3	7	4.1	5
HP	2	68.4	2	2.4	2	60.1	4	3.5	4
HS	3	52.5	5	4.5	5	57	5	4.5	6
DE	4	69.2	1	2.9	3	76.1	1	2.4	1
AP	5	65.3	3	3.6	4	69.5	3	2.9	3
AR	6	43	8	6.8	8	39.7	8	10.4	8
TS	7	51.7	6	5.7	6	71.9	2	2.8	2
NA	8	47.5	7	6.7	7	54	6	4.7	7
Mean				4.35				4.41	

* My Brother Is A Genius

Among sixth grade groups, four have comprehending scores from 65 to 70%. These are among the low five groups in MPHw on the standard story. But they did not maintain their ranking. DE in MPHw, is highest at 69.2% comprehending. Further, the HS group ranks third in MPHw, but has only 52.5% comprehending.

In RMPHW the ranks are more comparable, but again the HS group is misplaced, ranking fifth with a RMPHW of 4.5, well above the 3.6 of the AP group.

Both of the groups, TS and NA, which have higher MPHw on the standard story than the relevant one, have higher comprehending percents and lower RMPHW on the culturally relevant one. In the TS case, the difference is dramatic, a contrast of 51.7 to 71.9% in comprehending and 5.7 to 2.3 in RMPHW.

Two of the groups which have lower MPHw on the standard story follow our now well established pattern. Both the MB and AR groups had lower comprehending percents and higher residual miscues on the culturally relevant story.

But the DE group with a lower MPHw on story 53 actually has a higher comprehending score (76.1%) on its alternate than its top ranking 69.1% on story 53. RMPHW is lower also.

Among the groups with MPHw about the same on both stories, there is a mixed pattern. The HP group shows lower comprehending and higher RMPHW.

The HS group (with the same alternate story) shows higher comprehending but the same RMPHW. The AP group shows higher comprehending and lower RMPHW.

There are several important questions which the figures cited above pertain to.

Task Equivalence

We have attempted to select average groups for each grade and population and to present them with a standard story and a story with relevant content. We were aware, or assumed, that the groups would vary within and between themselves in proficiency. We presented each reader with two tasks, a standard story, to provide comparisons across groups and a culturally relevant story to provide depth of comparison between and within groups.

The amount of diversity between groups in both the quantitative and qualitative measures confirms our expectation that groups would find the standard stories of varying difficulty because of differences in their proficiency. Our goal was not to compare populations. Our groups do not, in any sense, constitute a statistical sample. But judging by performance, there is comparable proficiency in most of the sixth and fourth grade groups.

A key concern, considering how difficult it was to find culturally relevant stories, was how difficult the alternate task would be relative to the standard one. Theoretically, a relevant story would be easier than a non-relevant one to comprehend. But, of course, there are hard and easy examples of both more relevant and less relevant stories. Apparently our relevant stories tended to be harder than the standard stories for six of the eight second grade groups judged by both quantity and quality of miscues. In fourth grade, half the groups seemed to find the two tasks of equal difficulty. Two groups found the standard story easier, two found it harder. A similar pattern existed among the sixth grade groups. We did reasonably well, then, in making the two tasks comparable in the fourth and sixth grade. There are some notable examples where relevance appeared to be a factor in ease of reading. One is the Navajo fourth grade group reading Salt Boy (83). Both MPH and RMPH are about half of what they are on the standard story. A second is the fourth grade Mississippi group on Little Brown Hen. Comprehending percent is quite a bit higher with MPH comparable on the two tasks.

Predicting Difficulty of the Second Task

Closely related to the preceding issue is the extent to which a second story can be treated as harder or easier for a reader on the basis of comparing gross miscues on them. Our data shows a fairly strong tendency for relevant stories with lower MPH to have higher comprehending scores and lower residual MPH and vice versa. Again the exceptions we have cited are notable, particularly where stories have about equal MPH. Some, but not all, show approximately equal qualitative measures.

And, of course, it would be dangerous to base predictions on difficulty of comprehension for a particular reader on comparisons of gross numbers of miscues.

Relationships of Quantity and Quality

It's a common belief that gross number of errors is a suitable measure of reading proficiency. Miscue analysis provides a way of seeing the relationship of quantity to quality.

Comprehending, percent of miscues semantically acceptable or corrected, could be quite independent of quantity. Our analysis above of the group data in second grade shows a reasonably strong relationship between the mean ranks of MPH_W and comprehending percents. It shows an evident but weaker relationship among fourth grade groups and a similarly weak one among sixth grade groups. We can conclude that there is some inverse relationship between quantity of miscues and ability to retain meaning or quality.

Residual MPH_W combines the two measures and is an indication of the potential effect on comprehension of the miscues. With a few notable exceptions, ranks for gross and residual miscues are very similar.

Here we're talking about means for groups. Individuals within the group may, in fact, differ considerably from these central tendencies.

Table 4-4

CORRELATIONS: MPH_W^{**}, RMPH_W^{***}, COMPREHENDING

Correlations	2nd		4th		6th	
	44	All	51	All	53	All
Comprehending & MPH _W ^{**}	-.60 .001*	-.51 .001	-.36 .02	-.32 .001	-.58 .001	-.48 .001
Comprehending & RMPH _W ^{***}	-.81 .001	-.75 .001	-.66 .001	-.63 .001	-.84 .001	-.81 .001
RMPH _W ^{***} & MPH _W ^{**}	.94 .001	.93 .001	.93 .001	.91 .001	.90 .001	.87 .001

* Second figure shows significance level

** MPH_W - Miscues per hundred words

*** RMPH_W - Residual miscues per hundred words

The patterns of the rank order relationships for groups are supported by the Pearson Product Moment Correlations for readings of the standard stories and for all readings in each grade. Low to moderate negative correlations between MPHW and comprehending percents show for all standard stories and grades with the correlations higher for the standard stories. Negative correlations between comprehending percents and residual MPHW are moderate to high with standard stories somewhat higher. Fourth grade correlations are more moderate on both of these inverse relationships.

MPHW and residual MPHW have positive correlations clustered around .90 for all grades and all readings. Though these correlations are quite high, it is clear from the sharp differences between the correlations of Residual and total MPHW with comprehending that quality of miscues is to a considerable extent independent of quantity. We may, in fact, regard MPHW as essentially a quantitative measure, comprehending percent as a qualitative one and residual MPHW as the net effect of quantity and quality of miscues. There is no evidence to suggest that a specific number of miscues can be used to indicate that a particular piece of reading material is too easy or too difficult for any individual reader.

Part 2 - Distribution of Miscues: Where Do They Cluster and Why?

Everywhere in this report our focus is on what we can learn about readers through the analysis of their miscues. In this section we make a brief 90° turn and look at what we can learn about text difficulty through the miscues our subjects have made. Since this is not the main thrust of this research, we can only make a beginning at such analysis. But we can open up some issues and suggest some hypotheses for further exploration.

Our concern here is why several readers will make the same miscue at the same point in the text and why some sentences are loaded with miscues while others hardly produce any.

Miscue Frequency Measures

Several quantitative measures of miscue frequency have been used in order to gain further insight into where and why miscues cluster. For each sentence of the standard stories used in this study, the following was computed:

1. MISCS - the total number of miscues produced
2. MPWD - Miscues per word. This measure allows for a comparative analysis of miscue frequency for sentences of varying word lengths.
3. MPWPR - Miscues per word per reader. This would be the most useful figure for comparison across studies with different numbers of subjects.

Linguistic Complexity

In addition to the above calculations, the syntactic complexity of each sentence was analyzed through the use of the "Schmidt-Kittel Linguistic Complexity Scale." This scale is weighted to include points for Operations, "the term given to the manipulations or movements occurring in measuring syntactic complexity to operationalize the process numerically" (Schmidt, Kittel). The number of total operations per sentence is then divided by the number of words per sentence, thereby yielding the Linguistic Complexity Ratio. The complexity scale reflects such structural elements as elaborated phrases and clauses, unusual word order (preposing or postposing),

unusual and varied vocabulary, anaphoric structures, and the extent to which surface structure implies the deep structure. Though it includes some semantic factors, it primarily focuses on syntactic complexity.

Operations and Miscue Frequency

Pearson correlation coefficients were computed to assess the relationship among the following variables:

sentence length in words (WORDS)
 number of miscues per sentence (MISCS)
 miscues per word (MPWD)
 miscues per word per reader (MPWPR)
 operations per sentence (OPERS)
 operations per word, or the Syntactic Complexity Ratio (OPPWD)

Table 4-5 presents the significant correlations found between these variables for the three standard stories read by the subjects.

Table 4-5
 Complexity and Miscue Frequency

	Story #44*	Story #51**	Story #53***
MISCS X WORDS	r = .6224 s = .001	r = .8091 s = .001	r = .6923 s = .001
OPERS X WORDS	r = .9304 s = .001	r = .9642 s = .001	r = .9464 s = .001
MISCS X OPERS	r = .6720 s = .001	r = .8141 s = .001	r = .7614 s = .001
OPPWD X MPWD	r = .2673 s = .006	r = .2264 s = .003	r = .3756 s = .001
OPPWD X MPWPR	r = .2672 s = .006	r = .2311 s = .002	r = .3798 s = .001
WORDS X MPWPR	NS	NS	NS

* Kitten Jones

** Freddie Miller, Scientist

***My Brother Is A Genius

A very high positive correlation, significant at the .001 level, exists between the number of operations (OPERS) and sentence length (WORDS). The longer the sentence, the greater the linguistic complexity, according to the Schmidt-Kittel computation. Since a moderate correlation was also found between total number of miscues (MISCS) and sentence length (WORDS), it is not surprising that a slightly higher significant relationship also exists between operations (OPERS) and miscue frequency (MISCS). However, when frequency of operations (OPPWD) and miscues (MPWD) are adjusted for sentence length, the positive relationship between operations and miscues is significant but modest (.23 to .38). This indicates that the relationship between miscue frequency (MISCS) and operations (OPERS) is more a result of sentence length than the complexity ratio itself. There is no significant correlation between miscues per word per reader (MPWPR) and sentence length (WORDS).

Sentences Producing High Number of MPWPR

Table 4-6 presents the sentences selected from each story which resulted in the highest rate of miscues per word per reader for that story. This number as well as the word length and operation ratio for each sentence has been listed.

Table 4-6
Sentences with Highest Miscue Rates

Story Number	Sentence Number	Sentence	WORDS*	OPFWD*	MPWPR*
53*	8	"Philosophical" I yelled.	3	5.00	.490
53	14	"Philosophical" I shouted.	3	4.33	.391
53	26	Sinewy: stringy, strong, or powerful.	5	6.00	.425
53	211	"Sleigh, snow, soak, society soften, soldier, sorrowful, soap, stormy, soak, survive.	11	6.72	.477
53	167	There were glaring spot-lights and floodlights and cables rigged up everywhere.	11	4.81	.369
53	118	"Say da", Mr. Barnaby chuckled.	5	3.60	.319
Story means				3.76	.123
51**	5	"You've wrecked that doll!" she exclaimed.	6	5.50	.275
51	66	Mr. Miller sighed.	3	2.33	.302
51	22	After the cut in his allowance, Freddie's chemistry experiments narrowed to those safely outlined in a library book.	18	4.44	.240
51	73	"In the hall closet" came Elizabeth's tearful reply.	8	4.87	.305
51	80	His sister's cries grew louder.	5	4.60	.275
51	134	Such quick thinking	3	5.66	.302
Story Means				3.79	.113

* My Brother Is A Genius

** Freddie Miller, Scientist

Table 4-6

Sentences with Highest Miscue Rates
(Cont'd)

Story Number	Sentence Number	Sentence	WORDS*	OPPWD*	MPWPR*
44*	15	There are baseballs, bats, marionette dolls, and big balloons" said Penny.	11	4.54	.320
44	16	"Marionette dolls" exclaimed Sue.	4	3.75	.420
44	48	He printed them upstairs in his dark room.	7	4.28	.330
44	54	"How clear it is!"	4	4.25	.340
44	76	The judges laughed.	3	2.33	.360
Story means				3.40	.151

* Kitten Jones

While the majority of OPPW's for each sentence fall above the story means, a number of sentences do fall below the mean. Both the OPPW's and the sentence lengths within each story vary considerably. The mean ratio of MPWPR for the three stories are similar. However, in comparing the sentences within each story, we find that the selected sentences in story 51 do not produce as high a rate of MPWPR as those in the other two stories. In fact, story 53 had several more sentences that produced MPWPR that compare to the highest on story 51. We can only conclude that the means do not reveal the full story and that stylistic differences may, in fact, be involved. Data presented elsewhere indicates that story 53 is not a harder task for sixth graders than story 51 is for fourth graders.

Results from the data presented in both Tables 4-5 and 4-6 indicate that miscue frequency is not simply a function of either sentence length or linguistic complexity (as measured by the Schmidt-Kittel Scale). For instance, five of the sentences with highest MPWPR consist of only 3 words. This is important to note, as sentence length is often a main consideration in assessing readability, due in part to the relationship believed to exist between sentence length and linguistic complexity. The existence of this relationship has been supported by our data (see Table 4-5). However, while linguistic complexity does seem to be a factor in miscue frequency for some sentences, it is not, alone, a reliable predictor of difficulty as shown by miscue frequency.

Miscue frequency cannot be explained solely by factors related to the written language encoded by the author. This is consistent with our theoretical base in that reading is viewed as an interaction between the author and the reader; a communication process. Readers are active participants in this process, who utilize their knowledge of language, their past experiences, background and concepts in order to make predictions about the meaning and structure of the text. It follows then, that the closer the author's experiences, language and concepts are to those of the reader, the more effective the communication. Miscues will occur when certain lexical items, syntactic structures, concepts or events introduced in the story are unexpected, unfamiliar or in some other way difficult for the reader to predict. Therefore, in order to fully understand the factors contributing to miscue frequency, we must consider the written text in relation to, and not separate from, the reading process itself. We must analyze what makes these sentences with the highest rate of MPWPR difficult for readers of varying linguistic and cultural backgrounds to predict.

Lack of Contextual Support

When the language or concepts within a story are unfamiliar to the reader, redundancy or strong contextual support provides additional information that the reader can use to formulate predictions.

For several sentences, a careful analysis of the preceding portion of the stories and the miscues produced indicate that there are none or few contextual cues which the reader may utilize in order to predict what is to follow. It was also noted that these sentences are relatively simple structures each consisting of three words. In story 53, sentences 8 and 14 both produce high MPWPR. The sentences are:

Sentence 8 - "Philosophical!" I yelled.

Sentence 14 - "Philosophical!" I shouted.

Both these sentences share the same syntactic structure and contain the word "Philosophical". Directly preceding sentence #8, the reader is informed that the main character will be choosing, at random, a word to read from the dictionary. Therefore, the only cues the reader has available are the graphophonic cues. The grammatical structure offers little support, in that any form class of words could fit as well into the sentence slot which "philosophical" fills. The form class of the word would also be of little consequence to the meaning of the story in general. Thus, the miscues produced consist either of non-words with high graphic and phonemic similarity to the ER, or omissions. Sentence 14 follows a "definition" of philosophical: showing calmness and courage in the face of ill fortune. It is highly questionable that this can be regarded as a definition of philosophical at all. The high number of miscues for sentence 14 indicate that for the children reading this story, the definition offers no further cues.

Sentence 76 - "The judges laughed" - in Story 44 is another example of those high MPWPR sentences for which there are few supporting contextual cues. This sentence has an OPPW ratio of 2.33, falling below the story average of 3.40. The majority of miscues for this sentence involve the word "judges". In analyzing the preceding story line, it becomes evident that there is a sudden change in setting, time, sequence, and characters without a clear transition by the author. It must be inferred by the reader that there is a shift into a future time period, that a contest judging is now in progress and that there are judges involved in the scenario. Furthermore, based on children's experiences with courtroom scenes on TV, etc., it would be logical to assume that one judge would be involved in the contest. In fact, most of the miscues are substitutions of a singular form for the plural form of judge. Other miscues include non-word substitutions, and syntactically and semantically unacceptable substitutions. Thus, a lack of contextual support for predicting particular lexical items,

structures or events in a story can, in and of itself and in conjunction with other factors (discussed later), be a source of high MPWR.

Unfamiliar or Unusual Lexical Items

In the examples above, one might argue that "hard" words caused the difficulties. One must consider, however, when such difficult lexical items cause problems. Those we have cited had little contextual support.

Several sentences generating high MPWR do include a lexical item which accounts for a great many of the miscues for those sentences.

A lexical item can be difficult for various reasons, ranging from position in a particular syntactic structure to the frequency with which it occurs in the reader's linguistic environment. A lexical item may rarely occur in a reader's environment if it is a technical term or part of a specialized vocabulary for a particular field of study. Oftentimes one lexical item can have several general meanings as well as a technical meaning, and may be interpreted in a variety of ways, depending upon the reader's knowledge, background and concepts. The problem is much more complicated than simply knowing or not knowing the word.

In story 44, sentence 15, is "There are baseballs, bats, marionette dolls, and big balloons" said Penny. The lexical item, marionette, generates a great many miscues. This word also occurs in sentence 16, "Marionette dolls!" exclaimed Sue, which again generates a high number of MPWR.

The word marionette is a specialized term for a particular kind of puppet; one operated by the manipulation of strings. The word puppet is probably a more highly familiar and all-encompassing term used by those without a specialized knowledge of this art form. It is interesting however, to note that the miscues involving marionette in sentence 15 are qualitatively different from those produced for the same word in sentence 16.

Substitutions for marionette in sentence 15 are generally semantically and syntactically acceptable such as more dolls, other dolls, Mattel doll, marching dolls. The same readers, however, often move to either non-word substitutions such as \$monching dolls, \$mahale dolls, or omissions for marionette dolls in sentence 16. This change in miscue quality may be due to the fact that sentence 15 provides a conceptual and syntactic framework which the reader can utilize for prediction, while sentence 16 does not. One reader made particular use of the conceptual framework of sentence 15 to produce mitts as a substitute for marionette, which follows baseballs and bats.

Other miscues in sentence 15 include such substitutions as basketballs for baseballs and the treatment of ...baseballs, bats... as one unit (a very common unit) -- baseball bats. Other miscues in sentence 15 generally involve exclaimed, a term rarely, if ever, used in oral language. Explained is a frequent substitution.

Sentence 48 in story 44 - He printed them upstairs in his darkroom - represents an example of a sentence which utilizes common words with technical meanings. In this case, a knowledge of photography, as well as a conceptual framework for film development and photographic processing, is a prerequisite to the interpretation that the author most likely had in mind. This more technical interpretation of the sentence is, however, made even less predictable due to the text directly preceding this sentence: Mr. Jones finished the pictures himself. Note that the word picture, rather than photograph, is used here and throughout the story. Although there is mention of camera and the taking of pictures throughout the story, the concept of finishing the pictures in terms of photography may be quite alien to the reader. Many miscues consisted of substituting the word painted for printed, indicating that the reader conceptualized finishing the picture, in this context, in terms of their own experiences of finishing pictures: with paint or crayons. The high graphic similarity between print and paint would support this prediction. As would be expected, darkroom, here referring to the room in which developing and finishing takes place, was frequently processed by the readers as 2 words - dark room, consisting of an adjective and noun. Clearly, the readers are constructing a meaning for this sentence which is appropriate to their knowledge, concepts and experiences. In this case, however, the author presupposes knowledge and experiences that do not coincide with those of the readers.

Syntax

The significance of syntax has been considered in the development of some readability formulas. Those such as the Dawkins, Botel and Granowsky Syntactic Complexity Formula, (1973) are based on the assumption that in regard to syntax, the more complex the syntax (the number of deletions, postposing, fronting, etc.) the more difficult the readability. Although this does seem to be a factor in causing high MPWPR in some cases, syntactic factors other than complexity may contribute to the miscue frequency. Analysis of the sentences generating high MPWPR in this study reveal several such syntactic features.

Weak Syntactic Structure

To get to meaning readers predict the syntactic structure based on their knowledge of the language. The process of constructing meaning also requires using syntactic patterns to confirm and correct

prior predictions. When the syntactic structure is not easily predicted or recognized or no syntactic structure is available at all, readers must rely more heavily on other cuing systems such as the grapho-phonetic.

Sentence 211 in story 53 is a good example of such a case. The "sentence" is simply a list of words read in alphabetical order from a dictionary: Sleigh, snow, soak, society, soften, soldier, sorrowful, soap, stormy, stroke, survive... There is no syntactic structure at all: each word is a separate entity. There is no syntactic or semantic context, so only word identification strategies are utilized by the reader. The words in this sentence are completely random within the limitations that they begin with the initial consonant s. Unlike sentence 15 in story 44 - "There are baseballs, bats, marionette dolls, and big balloons" said Penny - there is not even a conceptual framework within which the items listed fall. There is neither a conceptual nor syntactic relationship between any of the words listed in this sentence.

The miscues on sentence 211 were generally substitutions of non-words and real words, most of which begin with the initial consonant s. Exceptions to this are substitutions such as often for soften and drove for stroke. The sentence was generally read with the intonation that one might expect to use when reading a list of words. However, the high number of MPWPR (4.77 - the second highest for all sentences in the study) indicates that this type of sentence, which lacks many of the cuing systems normally present in written language, is particularly difficult to read. The cue systems of language support each other for the reader.

Predictability and Syntactic Structures

Readers must predict syntactic structures well before they have read all the words in them.

In many structures the first word of the sentence provides reliable and important information about the total sentence and is a good source of prediction for readers. For instance, if why is the first word of a sentence, readers have little risk in assuming that the structure will be an interrogative. Based on readers' knowledge of the structure of interrogatives in English, they may also predict other more specific features of the sentence; for example that the word following why will probably be either a modal, have or be. Likewise, in sentence 54 of story 44, How clear it is, readers who use the first word to predict a question will most likely expect the features of an interrogative sentence. How, of course, often serves the function of question marker accompanied by an inversion of the subject and auxiliary. However, this sentence turns out not to be an interrogative but an active, declarative exclamation of a rather peculiar type. (Compare:

It is so clear.) Thus, as we would expect, many of the miscues involve either a reversal of the order of it is, resulting in is it, and thereby following through the prediction of an interrogative, or omissions of it, followed by a regression to correct after is. In addition, many readers substitute other adjectives such as clean and clever for clear, resulting in syntactically acceptable structures.

These miscues indicate that readers are using their knowledge of the structure of English sentences to make logical predictions concerning the syntactic features of the sentences they read.

Stylized Syntax

The manipulation of syntactic form is a common means by which authors can create and express their own literary style. While the resulting stylized structures may be aesthetically pleasing to the author and the readers, conceptual and linguistic predictability is often sacrificed in the process.

Several sentences in this study which generated high MPWPR fall within this category. They are generally literary structures which may be difficult for children to predict. For instance, several contain metaphors which violate lexical insertion rules by combining inanimate nouns with verbs which normally require animate subjects, such as the verb came with the noun reply. Others contain intransitive verbs such as chuckle, used in a transitive sense as a dialogue carrier. Children's miscues are evidence of their attempts to construct meaningful syntactic structures consistent with the story content.

Sentence 73 of story 51 - "In the hall closet" came Elizabeth's tearful reply - contains several literary features which make this sentence conceptually and linguistically hard to predict and comprehend. The verb came, for instance, serves 2 functions in this sentence: 1) Elizabeth replied by saying "(I am) In the hall closet"; 2) The reply came from the hall closet. In addition, the use of tearful to modify the noun reply is, of course, a metaphoric device: Literally, the "reply was full of tears", but meaning she replied tearfully.

The miscues for this sentence indicate the readers' often successful efforts in breaking through the surface structure to discover the deep structure and the logical relationships underlying the lexical items. For instance, several miscues involve a substitution at the word level, (and insertion of a suffix at the morphemic level) of tearfully for tearful. These miscues accurately reflect the deep structure relationships of Elizabeth replied tearfully, in which tearfully is an adverb modifying Elizabeth's act of replying. These miscues result in structures such as came Elizabeth's tearfully replied and came Elizabeth tearfully reply.

Other miscues for this sentence involve the substitution of Elizabeth for Elizabeth's, thereby making Elizabeth the subject of came, a more predictable logical subject for the verb came than a reply.

Sentence 80 of story 51 is another example of how stylistic features can cause complexity. The majority of miscues for the sentence, His sister's cries grew louder, involve the possessive sister's cries in relation to the verb grew. It's important to note that the word cries can be a verb in the sense of weeping or it can be either a verb or noun in the sense of calling out. This sentence contains the latter sense of cry as a plural noun. However, in the previous context the reader is told that Elizabeth is indeed weeping, thus making the weeping sense of cry highly predictable. The miscues clearly indicate that this is true. A great many miscues delete the possessive 's from sister's, transforming his sister's cries into his sister cries or cried, in which sister is the subject of the verb cries or cried. Thus, cries takes on the sense of weeping, and is in accord with the story line. Several readers then omit grew which would conflict with his sister cries, thus producing his sister cries (or cried) louder. Others regress to correct at this point, or leave the structure as a syntactically and semantically unacceptable sentence.

Sentence 118 in story 53 is "Say da", Mr. Barnaby chuckled. It exemplifies a widely used stylistic feature found in children's literature. In attempting to avoid repetitive use of "said", "answered" or "replied", many authors use such constructions as laughed Bob, cried Mary, Jim giggled or, in this sentence, Mr. Barnaby chuckled. The word chuckled, if ever encountered in oral language, would probably be used as an intransitive verb. In this sentence, however, it is used as a transitive verb with "Say da" as its object. In addition to this, the quote itself "say da" is unusual in the sense that a non-word is used as object of an imperative verb with the subject deleted so that it must be inferred by the reader.

The miscues for this sentence indicate that many readers processed it as an interjection rather than an imperative, inserting a comma after say, resulting in say, da with intonation similar to Say, John, how is Mary? Several readers also substituted a real word, either dad or daddy for da, a logical prediction based on what is normally found in written language. Another observation based on the miscues for this sentence is that the one sentence was processed by many readers as 2 separate sentences, in which Mr. Barnaby has not uttered the command Say da. In other words, the intonational pattern suggests that a period was inserted to produce Say da. Mr. Barnaby chuckled. Say da, in this case, is not the object of chuckled, but rather, chuckled is interpreted as an intransitive verb.

It seems clear that the author's stylistics have contributed to linguistic and conceptual complexity as reflected in the reader's miscues.

Complex Syntactic Structure

Sometimes as our correlations indicated, miscues do reflect sheer syntactic complexity in the sense mentioned earlier in this section; that is, having undergone various transformations such as preposing, ellipses, fronting, relative clause deletion, etc. Sentence 22 of story 51 is After the cut in his allowance, Freddie's chemistry experiments narrowed to those safely outlined in a library book. It contains several complex features which are reflected in the miscues of the readers.

The sentence begins with a left branching dependent clause with a complicated surface structure with the predicate deleted (the cut in his allowance was made). The pronoun his within this clause is co-referential with the proper noun Freddie, which occurs as the subject noun in the following independent clause. The pronoun those, which occurs in the prepositional phrase following the main clause verb phrase, refers ambiguously to either the types or numbers of chemistry experiments or the actual chemistry experiments themselves. Following those is a reduced relative of the underlying structure those (which were) safely... with which were deleted. The use of the term safely outlined is misleading in that it actually refers to safe experiments which were outlined.. This entire clause is in the passive with the agent deleted.

The points at which miscues cluster in this sentence indicate which features might be most complex or most syntactically ambiguous. Many of the miscues involve the first clause of the sentence. The noun phrase the cut is changed frequently to either he cut or they cut, resulting in a subject and verb in place of the deleted one. The cut in the text is, of course, a nominalization of a verb phrase from someone cut his allowance.

His allowance is replaced frequently by the allowance, which, of course, loses the co-referentiality of his with Freddie. It is important to note that a causal relationship between Freddie's previous experiments discussed in the story and the cut in his allowance by Freddie's mother as punishment must be inferred simply from the phrase after the cut in his allowance. The miscues of they cut or he cut for the cut indicate that the reader has not inferred that Freddie's mother is the one responsible for cutting Freddie's allowance. The miscues of the allowance for his allowance suggests that the readers may not be aware of whose allowance is being cut. Thus, this prepositional phrase, with a pro-form whose reference is not immediately discernable,

is quite complex and inexplicit. In addition, the causal relationship which underlies the meaning of this sentence is not explicitly and clearly stated.

The subject noun phrase in the main clause begins with the possessive form of Freddie's. Many readers, expecting the subject noun to be the first word in the phrase substitute Freddie for Freddie's, and then expect chemistry to be a verb.

In the reduced relative clause preceded by those, many readers turn the structure into those safety... in which those is a determiner and safety is an adjective. Either the reduced relative clause is not assigned by the reader or the complexity mentioned earlier concerning safely outlined has contributed to the construction of these miscues.

The analysis of this sentence seems to indicate that the syntactic features which are often considered linguistically complex as a result of various transformations, can, in fact, generate a large number of miscues. The miscues provide us with insights into the ways in which these syntactic features interact with readers' predictions and expectations, and the extent to which relationships in the story are clearly expressed by the surface structure representations.

Combination of Factors

This category includes those sentences in which combinations of the factors previously outlined contribute to the high miscue frequency. In other words, these sentences can have unusual lexical items, a lack of contextual support, in addition to various other features.

Sentence 26 of story 53: Sinewy: stringy, strong or powerful is an example of this type of sentence. It is a definition of a word which was chosen at random from a dictionary to be read aloud by the main character. There is no prior information provided that would be helpful to the reader in predicting that this particular word would be read. The reader does, however, have contextual clues that suggest that a dictionary definition will be read aloud by the character. Sinewy is probably a low frequency word in the children's linguistic environments, and therefore unpredictable. The syntactic structure is rather weak in that it lacks an overt basic sentence order of subject-verb-object. However, the punctuation (the colon) supplies a structure in the sentence so that it serves as a verb marker. The sentence can be paraphrased as Sinewy is defined as....or Sinewy means.... The colon makes these interpretations possible, but not, perhaps, for sixth graders.

Many of our readers do not demonstrate through their intonation pattern, an understanding of this role for the colon. The sentence is read without a pause at the point of the colon, like a string of words. Many of the miscues on sinewy and stringy were nonword substitutions with high graphic similarity.

A similar sentence precedes Sentence 25 - Savage: wild not tamed, but resulted in fewer miscues. The intonation patterns suggest that perhaps sentence 26 was perceived as a continuation of the definition for Savage, or at least that readers didn't know where the syntactic pattern ended.

Although some sentences discussed seem to fit neatly into one category or another, it is most likely the case that most sentences with high miscues have several confounding features which result in high miscue frequencies.

Summary and Conclusion

Sentences resulting in highest MPWPR for each story were selected for analysis as an initial step in determining how and why miscues are more likely to occur in some places than others. From our initial evaluation of the data presented in Tables 6 and 7, we determined that miscue frequency was not simply a function of either sentence length or linguistic complexity. Based on our theoretical model of the reading process, we investigated factors which might affect the reader's predictions of the written text.

We found that at least seven factors affect predictability and thus contribute to high miscue frequency:

1. Lack of prior contextual information.
2. Unfamiliar or unusual choice and use of lexical items.
3. Weak sentence structure.
4. Unpredictable but simple structures.
5. Unusual stylized syntax.
6. Complex syntactic structures
7. A combination of any of the above.

For many sentences, the miscues themselves have a confounding effect in that once a miscue occurs in a sentence it is likely that others will follow. The reader will produce further miscues in an attempt to construct syntactically and semantically acceptable structures. In addition, sentences following those with high miscue rates will tend to have disproportionate numbers of miscues.

In order to understand the factors which affect readability we must view both the author and the readers as active participants in a communication process.

Part 3 - Correction: Its Influences and Use

Corrections of miscues constitute a complex phenomenon. In theory, proficient readers are monitoring their reading so that if miscues disrupt meaning, disconfirmation occurs and the readers seek the source of dissonant information and correct. If miscues do not disrupt meaning, the proficient reader is unlikely to notice and correct them.

A number of factors muddle this situation, however:

1. All correction is not overt. Readers may correct silently, satisfying themselves with no overt correction.
2. Readers may avoid the regression often necessary for correction. This may be because they've been taught not to regress, or because they wish to avoid calling attention to miscues.
3. Readers may correct before completing miscues. We study only complete attempts at miscues though we count partials separately and we consider as an unsuccessful correction a miscue that follows a partial attempt.

General Correction Phenomena

Figures 4-4, 4-5, 4-6 show the mean percent of correction for each group, the percent of corrected but semantically unacceptable miscues, and the percent of partials produced which were corrected before complete miscues occurred.

Some general phenomena are apparent. In many groups in all 3 grades, partials equal or exceed corrections. That means that need for corrections is detected before the miscue is fully uttered.

In all groups, half or more of the corrected miscues are semantically unacceptable before correction. In many groups the great majority of attempted corrections involve semantically unacceptable miscues.

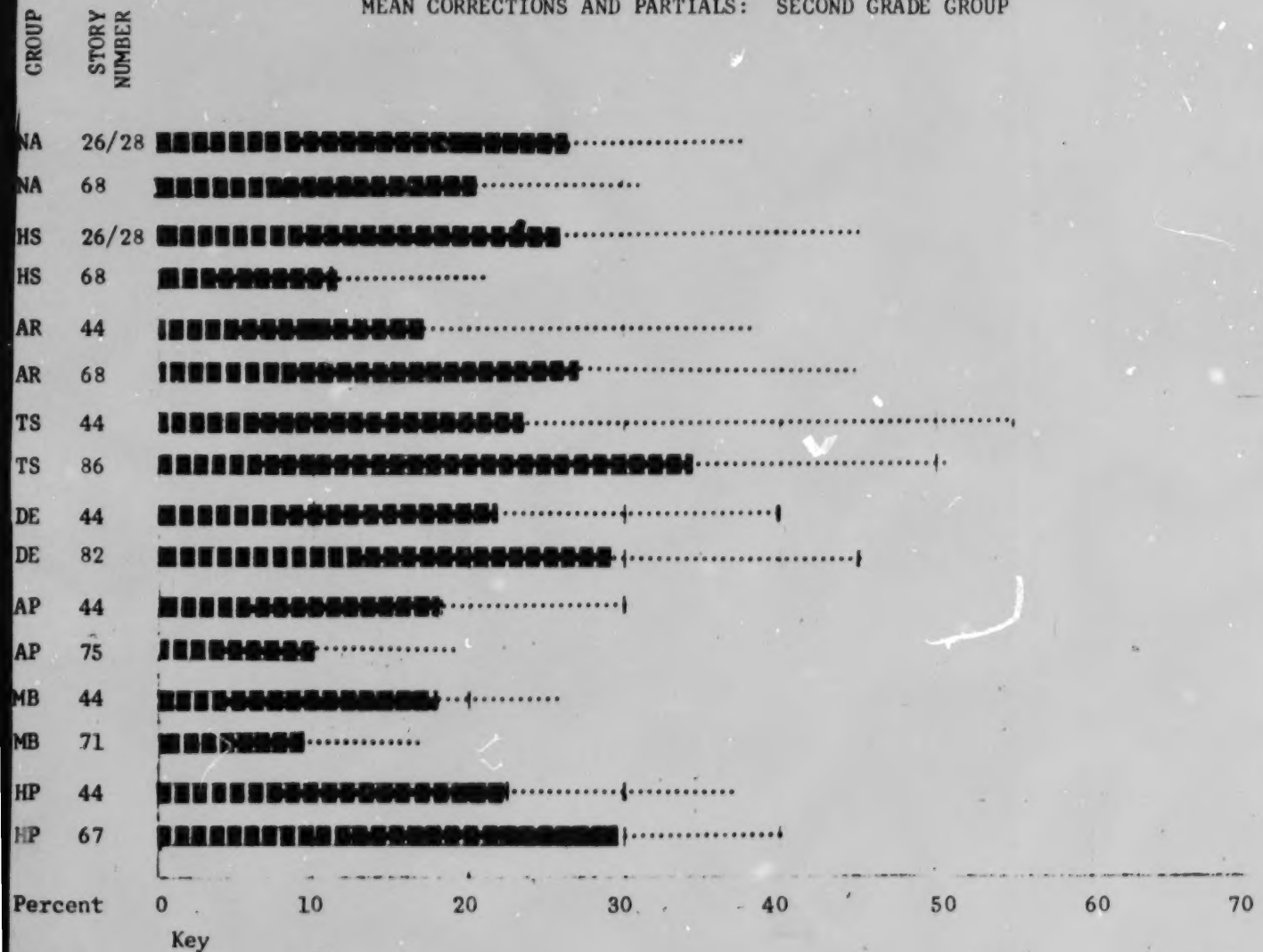
Individual readers range from a second grade AP subject who has no corrections on one story and 1.9% on a second to a HP second grader who corrects 54% of miscues on one story, a TS fourth grader who corrects 55%, and a DE fourth grader who corrects 58%.

Group Means for Successful Correction

Mean percent of correction for second grade groups ranges from 3 groups - HS2, AP2 and MB2 - who average about 10% on one story to 3 groups which average about 30% - TS2, HP2 and DE2 - on one story each. As a whole, second graders average 21.7% successful corrections. Mean for the standard story (44) is 19.9%.

Figure 4-4

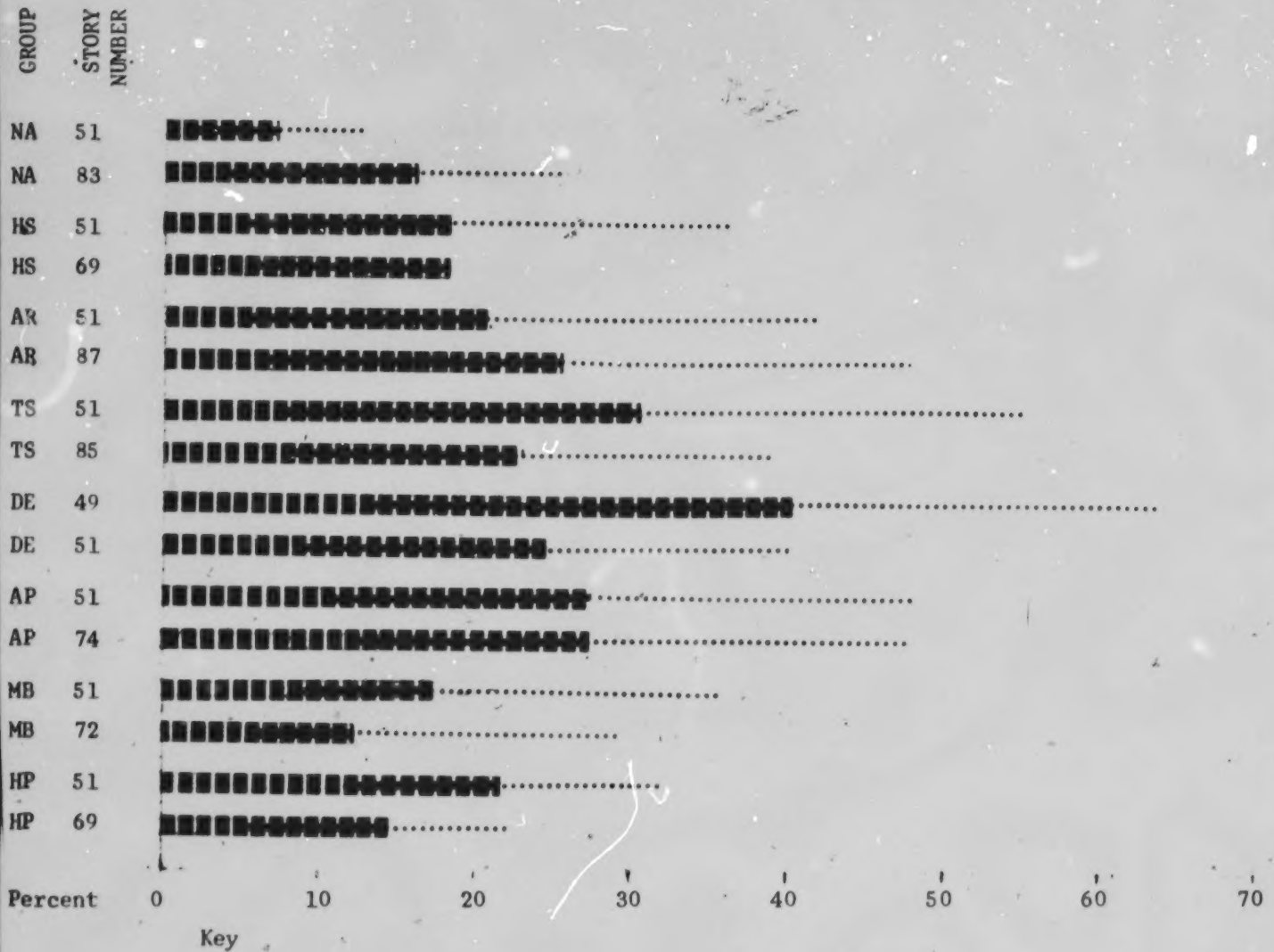
MEAN CORRECTIONS AND PARTIALS: SECOND GRADE GROUP



■■■■ mean % correct
 ■■■■ mean % corrected which were semantically unacceptable
 mean % partials corrected

Figure 4-5

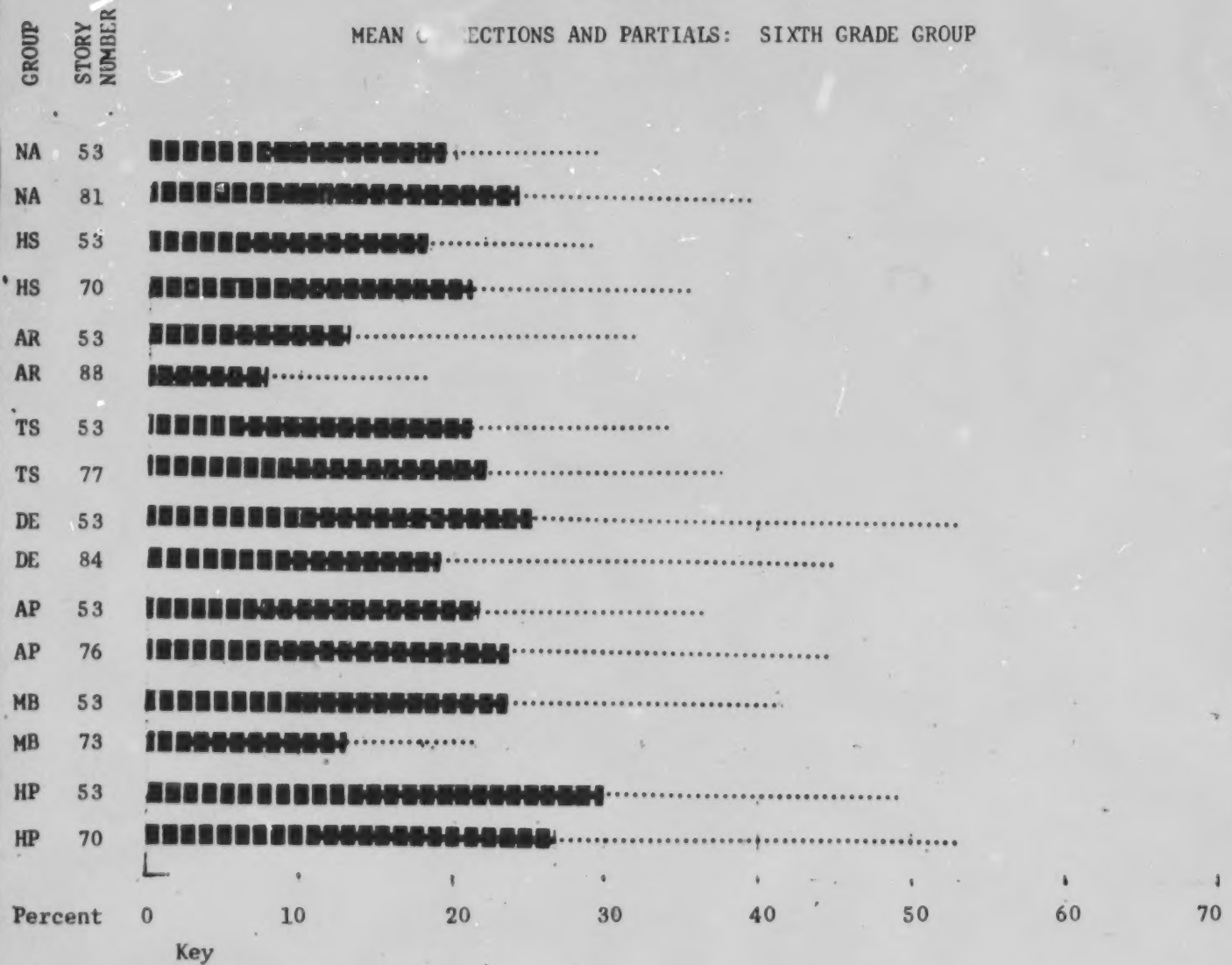
MEAN CORRECTIONS AND PARTIALS: FOURTH GRADE GROUP



■■■■ mean % correct
 ■■■■ mean % corrected which were semantically unacceptable
 mean % partials corrected

Figure 4-6

MEAN CORRECTIONS AND PARTIALS: SIXTH GRADE GROUP



■■■■ mean % correct
 - - - - mean % corrected which were
 semantically unacceptable
 mean % partials corrected

Figure 4-7

MEAN PERCENT CORRECTED AND NOT CORRECTED: SECOND GRADE GROUP

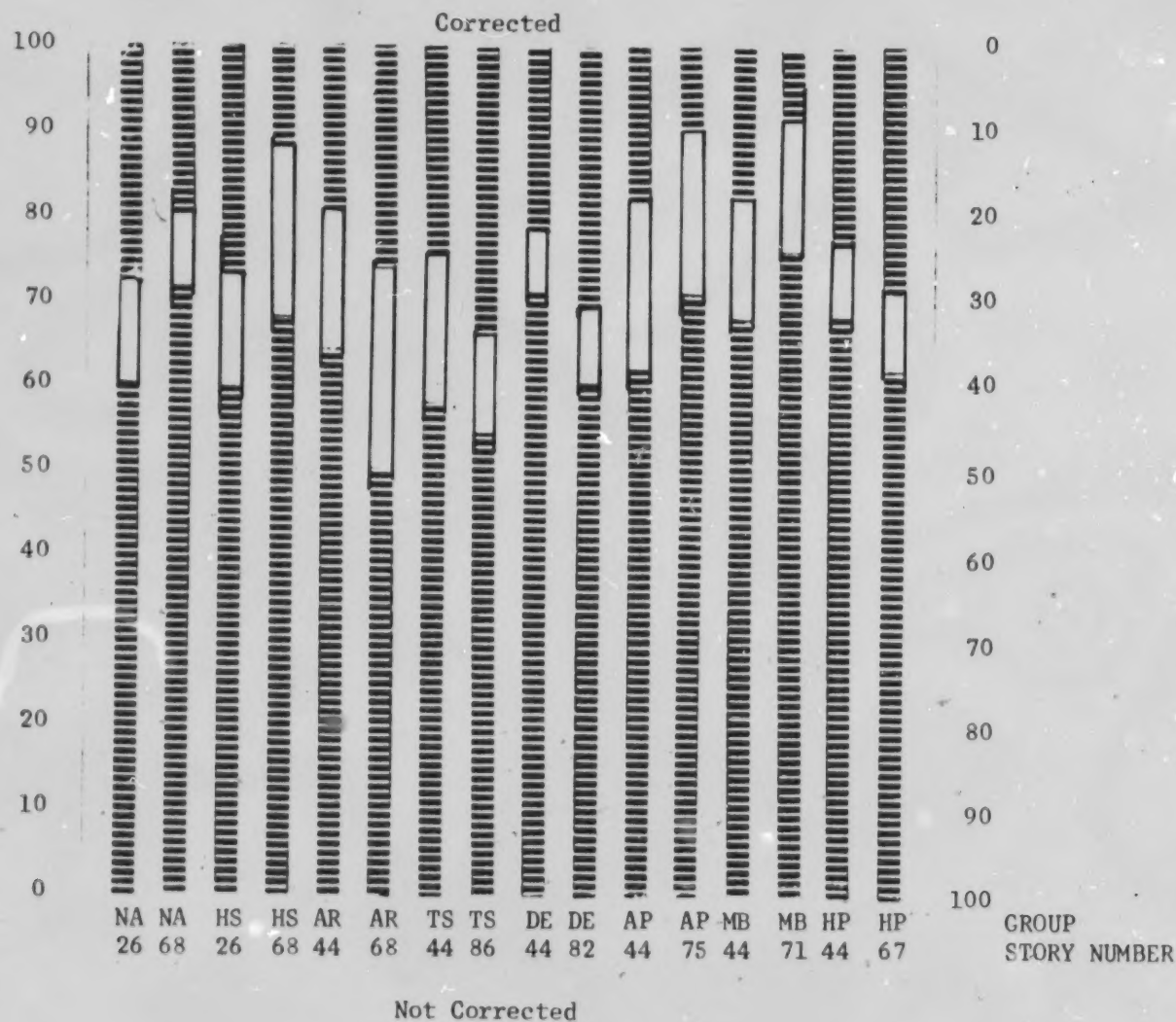
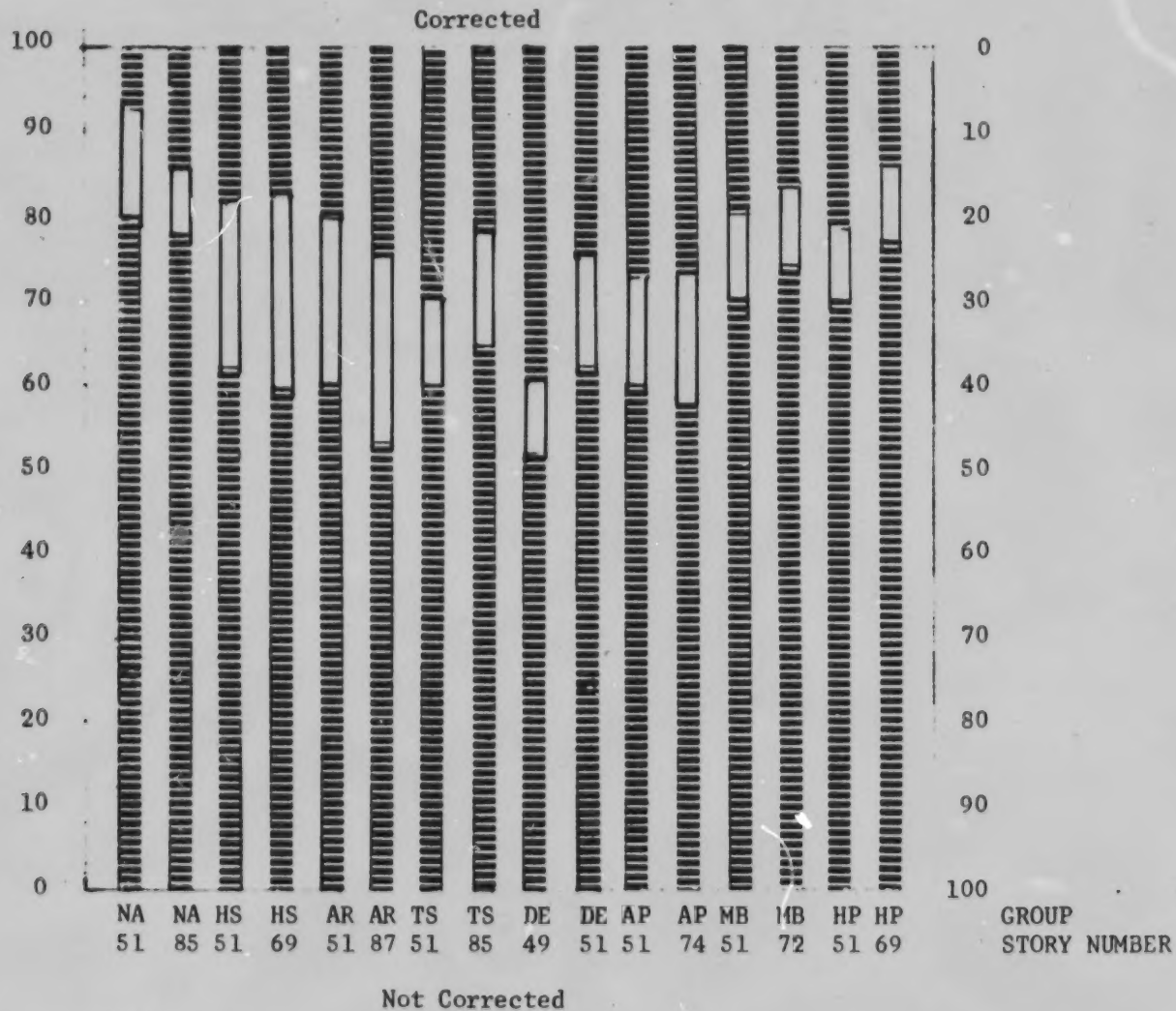


Figure 4-8

MEAN PERCENT CORRECTED AND NOT CORRECTED: FOURTH GRADE GROUP



One fourth grade group (DE4) corrects 40% of its miscues on one story. TS4 corrects 30% on one story, while AP4 readers are consistent with a mean of about 27% on both stories. NA4 corrects 7 and 15% on their two stories and are at the low end for fourth graders. Mean percent for fourth grade is 21.4%. For the standard story (51), it is 21%.

HP6 corrects 30% on one story and almost 27% on the second. AR sixth graders have low percents of 7.55 and 13%. Mean percent for sixth grade is 20.4%. For standard story 53 it is 21.3%.

Sixth grade groups are relatively consistent in corrections across the two stories they read except for the MB group.

Fourth grade groups are consistent in both stories except for the NA, who fall very low on the standard story and DE, who shoot up to 40% on the relevant story.

Second grade groups show much more variation in percent of corrections in the two stories. This may reflect more sensitivity of rate of correction to story difficulty, though four groups had higher rates of correction on story 44 (standard for them) and two groups had lower rates compared to the culturally relevant second story.

In both fourth and sixth grades, correction rates tend to be similar on both stories for each group. Exceptions are the fourth grade NA, with a much higher correction on story 83, the relevant story, and AR and MB sixth graders, who correct more on story 53.

Fourth and sixth graders vary quite a bit on corrections of the standard story among groups. Second grade groups have similar correction rates for story 44, standard for six groups, but more varied rates between the two stories they read.

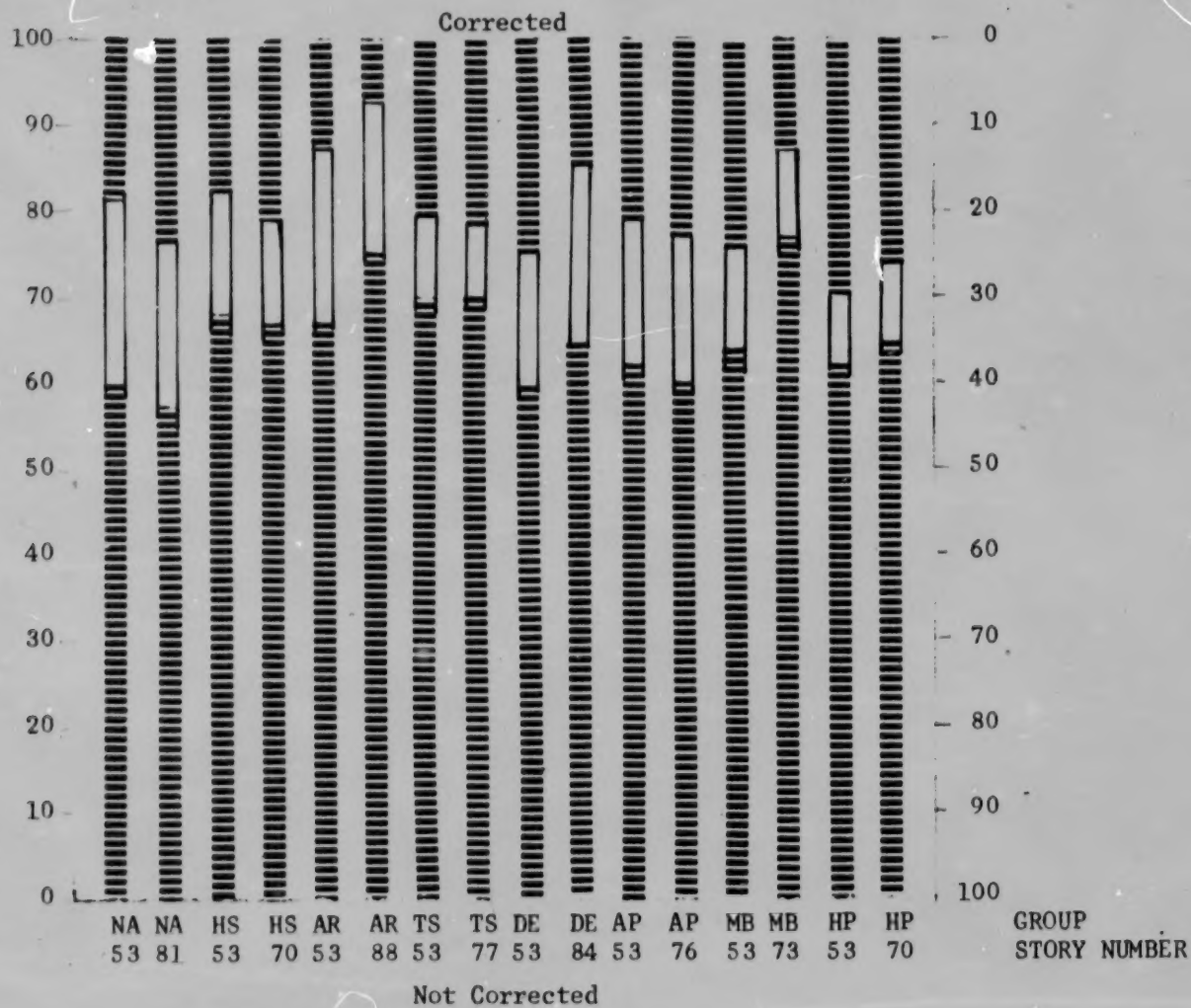
Groups vary considerably in correction, but there is no general trend for second language groups to correct more or less than dialect groups.

Unsuccessful Corrections

If a partial or full attempt precedes an unsuccessful full attempt with no ultimate correction, we code such miscues as unsuccessful corrections. Figures 4-7, 4-8, 4-9, show corrections. The gaps between corrected and uncorrected miscues represent unsuccessful corrections.

Figure 4-9

MEAN PERCENT CORRECTED AND NOT CORRECTED: SIXTH GRADE GROUP



In general, when attempts to correct are made, they are successful. Some groups of readers, however, show rather high percents of unsuccessful corrections and high ratios of unsuccessful to successful corrections. Among second grade groups, AR2 has about 20% unsuccessful corrections on both stories, HS2 shows 20% on one story, AP2, 20% on both stories. In four cases, unsuccessful corrections equal or exceed successful (HS2, AP2, on both stories, and MB2).

For fourth grade groups, HS4 and AR4 have 20% unsuccessful corrections on both stories. That about equals their successful corrections.

Sixth grade groups with as much as 20% unsuccessful corrections are: NA6 on both stories, AR6 on one and DE6 on one. In four cases, unsuccessful corrections match or exceed successful. They are AR6 on both stories and NA6 and DE6 on one story each.

AR6 and HS6 groups, across grades, seem to have relatively high rates of unsuccessful correction. This may reflect their incomplete control of English. They know enough to correct, but not enough to succeed all the time.

Crosstabulation tables for correction and syntactic and semantic acceptability on the standard stories show which miscues our subjects tend to correct. (Table 4-7 - 4-12) The columns show the degree of acceptability of the miscue within the sentence: 0 = not acceptable at all; 1 = acceptable with the prior portion of the sentence; 2 = acceptable with following portion of the sentence; 3 = acceptable in sentence only; 4 = fully acceptable in the total passage; 5 = acceptable in the sentence only, except for other unacceptable miscues in the sentence; 6 = acceptable in the total passage except for other unacceptable miscues in the sentence.

Second graders who read story 44 show 65.7% of their miscues with no attempt at correction, 19.9% successful correction and 13.4% unsuccessful correction. But 71% of fully syntactically acceptable miscues are uncorrected as are 77.2% of those fully semantically acceptable. Attempts at correction are about evenly split between successful and unsuccessful attempts for miscues with full syntactic acceptability (14.6 and 12.9%) corrections of miscues with full semantic acceptability are more likely to be successful (13.1 to 9.3%).

However, almost half of syntactically unacceptable miscues involve attempts at correction and these are largely successful (26% with 17% unsuccessful). Just under 40% of semantically unacceptable miscues involve correction attempt, with a bit more than half of those unsuccessful.

Half of those miscues only semantically and/or syntactically acceptable with what precedes them are corrected. These attempts at correction are overwhelmingly successful: 37.4% compared to 10.9% unsuccessful of those semantically acceptable with prior text; 39.3% compared to 11.5% of syntactic.

These figures demonstrate a stronger tendency to attempt to correct semantically and syntactically unacceptable miscues than acceptable ones and greatest success in correcting those miscues which are acceptable with prior text. This tendency has been noted in other miscue studies. That it occurs among average second graders with such wide linguistic divergance is worth noting.

Table 4-7
CORRECTION BY SYNTACTIC ACCEPTABILITY: STORY 44*

COUNT	FOR	FOR INC	ONLY WIT ONLY WIT IN SENT TO TOTAL SENT ACC PASS ACC FOR									
COR	NOT	INC	N BEFORE	N AFTER	NCH	PASSAGE	NO OTHER	NO OTHER	NO OTHER	NO OTHER	TOTAL	
			0	1	2	3	4	5	6			
CORRECT												
	0		10.7	8.9	3.5	5	37.9	6	12.9		75.1	
NOT CORRECT			10.2	11.4	4.8	0.7	50.8	0.6	17.2		65.6	
			50.6	40.6	68.2	83.3	71.1	46.7	77.7			
	1		5.1	7.2	1.1	1	7.8	0	1.5		22.9	
CORRECT			22.8	31.6	4.4	0.4	34.2	0.0	6.6		19.6	
			24.2	39.3	21.2	16.7	10.6	0.0	9.0			
	2		3	1	0	0	6	0	0		10	
ABANDONS CORRECT			30.0	19.0	0.0	0.0	60.0	0.0	0.0		0.9	
			1.5	0.5	0.0	0.0	1.1	0.0	0.0			
	3		1	0	0	0	1	0	0		2	
IDEALOG CORRECT			50.0	0.0	0.0	0.0	50.0	0.0	0.0		0.2	
			0.5	0.0	0.0	0.0	0.2	0.0	0.0			
	5		33	21	5	0	69	3	22		153	
ATTEMPT UNSUCCESS			21.6	13.7	3.3	0.0	48.1	2.0	14.4		13.6	
			13.9	11.5	9.6	0.0	12.9	33.3	13.3			
COLUMNS			195	181	52	6	433	9	166		1143	
TOTAL			17.0	10.0	4.5	0.5	46.0	0.8	14.5		100.0	

* Kitten Jones

Table 4-8
CORRECTION BY SEMANTIC ACCEPTABILITY: STORY 44*

	COUNT ROW PCT (%) COL PCT	ONLY WIT ONLY WIT IN SENTE				IN TOTAL SENT ACC		PASS ACC		ROW TOTAL
		H PRIOR	H AFTER	NCE	PASSAGE	WO OTHE	WO OTHE	WO OTHE	WO OTHE	
CORRECT	0	202	115	37	77	200	37	83	751	
NOT CORRECT	1	26.9	15.3	4.9	10.3	26.6	4.9	11.1	65.7	
		59.9	50.1	69.8	65.1	77.2	72.5	83.0		
CORRECT	1	61	86	11	22	34	6	8	228	
		26.8	37.7	4.8	9.6	14.9	2.6	3.5	19.9	
		18.1	37.4	20.8	19.5	13.1	11.8	8.0		
ABANDONS CORRECT	2	5	4	0	0	1	0	0	10	
		50.0	40.0	0.0	0.0	10.0	0.0	0.0	5.9	
		1.5	1.7	0.0	0.0	0.4	0.0	0.0		
DIALECT CORRECT	3	2	0	0	0	0	0	0	2	
		100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	
		0.6	0.0	0.0	0.0	0.0	0.0	0.0		
ATTEMPT UNSUCCESS	9	67	25	5	14	24	8	9	152	
		44.1	16.4	3.3	9.2	15.8	5.3	5.9	13.3	
		19.9	10.9	9.4	12.4	9.3	13.7	9.0		
COLUMN TOTAL		337	230	53	113	259	51	100	1143	
		29.5	20.1	4.6	9.9	22.7	4.5	8.7	100.0	

* Kitten Jones

Table 4-9
CORRECTION BY SYNTACTIC ACCEPTABILITY: STORY 51*

	COUNT		ONLY WIT ONLY WIT IN SENTE IN TOTAL SENT ACC PASS ACC POW																		
	HOW	PCT	INO	H PRIOR H AFTER NCE PASSAGE NO OTH NO OTH TOTAL																	
	COL	PCT	I	0	I	1	I	2	I	3	I	4	I	5	I	6	I				
CORRECT			I		I	I		I		I		I		I		I					
	0	I	159	I	160	I	34	I	12	I	510	I	8	I	159	I	1042				
NOT CORRECT		I	15.3	I	15.4	I	3.3	I	1.2	I	48.9	I	0.8	I	15.3	I	65.5				
		I	64.1	I	55.4	I	63.0	I	66.7	I	68.2	I	72.7	I	71.0	I					
	1	I	61	I	113	I	14	I	3	I	124	I	2	I	23	I	340				
CORRECT		I	17.9	I	33.2	I	4.1	I	0.9	I	36.5	I	0.6	I	6.8	I	21.4				
		I	24.6	I	39.1	I	25.9	I	16.7	I	16.6	I	18.2	I	10.3	I					
	2	I	1	I	2	I	1	I	0	I	5	I	0	I	4	I	13				
ABANDONS CORRECT		I	7.7	I	15.4	I	7.7	I	0.0	I	38.5	I	0.0	I	30.8	I	0.8				
		I	0.4	I	0.7	I	1.9	I	0.0	I	0.7	I	0.0	I	1.8	I					
	3	I	0	I	0	I	0	I	0	I	1	I	0	I	0	I	1				
DIALECT CORRECT		I	0.0	I	2.0	I	0.0	I	0.0	I	100.0	I	0.0	I	0.0	I	0.1				
		I	0.0	I	0.0	I	0.0	I	0.0	I	0.1	I	0.0	I	0.0	I					
	9	I	27	I	14	I	5	I	3	I	108	I	1	I	38	I	196				
ATTEMPT UNSUCCESS		I	13.8	I	7.1	I	2.6	I	1.5	I	55.1	I	0.5	I	19.4	I	12.3				
		I	10.9	I	4.8	I	9.3	I	16.7	I	14.4	I	9.1	I	17.0	I					
COLUMN			248		289		54		18		748		11		224		1592				
TOTAL			15.6		18.2		3.4		1.1		47.0		0.7		14.1		100.0				

* Freddie Miller, Scientist

Table 4-10
CORRECTION BY SEMANTIC ACCEPTABILITY: STORY 51*

	COUNT		ONLY HIT ONLY HIT IN SENT IN TOTAL SENT ACC PASS ACC												ROW TOTAL
	FOR COL	PCT PCT	1	2	3	4	5	6	7	8	9	10	11	12	
CORRECT	0	37.8	17.9	3.0	7.8	20.2	4.4	11.2	65.4						
NOT CORRECT	1	87	122	15	40	51	9	26	340						
CORRECT	2	4	3	1	0	3	0	2	13						
ABANDONS CORRECT	3	0	0	0	0	1	0	0	1						
DIALECT CORRECT	4	0	0	0	0	0	0	0	0						
ATTEMPT UNSUCCESS	5	108	25	6	9	28	6	14	196						
COLUMN TOTAL	577	329	52	130	283	61	159	1561							
TOTAL	36.3	25.7	3.3	8.2	17.8	3.8	10.0	100.0							

* Freddie Miller, Scientist

Table 4-11
CORRECTION BY SYNTACTIC ACCEPTABILITY: STORY 53*

COUNT		FOR PCT INC		ONLY WRT ONLY WRT IN SENSE IN TOTAL SENT ACC PASS PCC FOR												TOTAL	
CCI	PCT	I	0	I	1	I	2	I	3	I	4	I	5	I	6	I	
CORRECT																	
NOT CORRECT	0	I	120	I	119	I	42	I	15	I	574	I	4	I	154	I	1329
		I	11.7	I	11.6	I	4.1	I	1.5	I	55.8	I	0.4	I	15.0	I	64.9
		I	53.1	I	47.2	I	70.0	I	75.0	I	65.9	I	50.0	I	72.3	I	
CORRECT	1	I	65	I	106	I	12	I	3	I	130	I	2	I	23	I	341
		I	19.1	I	31.1	I	3.5	I	0.3	I	39.1	I	0.6	I	6.7	I	21.3
		I	28.8	I	42.1	I	20.0	I	15.0	I	15.9	I	25.0	I	10.9	I	
ADAMANT CORRECT	2	I	0	I	4	I	0	I	0	I	2	I	0	I	0	I	6
		I	0.0	I	66.7	I	0.0	I	0.0	I	33.3	I	0.0	I	0.0	I	7.4
		I	0.0	I	1.6	I	0.0	I	0.0	I	0.2	I	0.0	I	0.0	I	
DIALLECT CORRECT	3	I	1	I	1	I	0	I	0	I	3	I	0	I	0	I	5
		I	20.0	I	20.0	I	0.0	I	0.0	I	60.0	I	0.0	I	0.0	I	0.3
		I	0.4	I	0.9	I	0.0	I	0.0	I	0.4	I	0.0	I	0.0	I	
ATTEMPT UNSUCCESS	6	I	40	I	22	I	6	I	2	I	112	I	2	I	36	I	220
		I	18.2	I	10.0	I	2.7	I	0.9	I	56.9	I	0.9	I	16.4	I	13.9
		I	17.7	I	9.7	I	10.0	I	10.0	I	13.4	I	25.0	I	16.5	I	
COLUMN			226		252		60		20		821		4		213		1300
TOTAL			14.1		15.8		3.8		1.3		51.3		0.5		13.3		105.9

* My Brother Is A Genius

Table 4-12
CORRECTION BY SEMANTIC ACCEPTABILITY: STORY 53*

CCUST		ONLY WITH ONLY LST IN SENT IN TOTAL SENT ACC PASS TCC												TOTAL	
CCU	PCT	NO	E PRIOR		E AFTER		NO		PASSAGE		NO CORR		TOTAL		
CCU	PCT	NO	1	2	3	4	5	6	7	8	9	10	11	12	
CORRECT															
0		308	149	61	87	251	88	132	1028						
1		30.0	14.5	5.5	8.5	24.4	3.9	12.8	64.7						
2		60.5	50.0	77.2	68.5	73.0	65.6	72.0							
CORRECT															
1		84	116	14	26	63	9	20	341						
2		24.6	34.0	4.1	7.6	16.5	2.5	5.8	21.3						
3		16.5	38.9	17.7	20.5	10.3	10.8	14.0							
ABANDONS CORRECT															
2		1	4	0	0	1	0	0	6						
3		16.7	66.7	0.0	0.0	16.7	0.0	0.0	0.4						
4		0.2	1.3	0.0	0.0	0.3	0.0	0.0							
EXTRACT CORRECT															
3		1	1	0	1	2	0	0	5						
4		20.0	20.0	0.0	20.0	40.0	0.0	0.0	0.1						
5		0.2	0.3	0.0	0.8	0.6	0.0	0.0							
ACCEPT UNSUCCESS															
9		115	28	4	13	27	12	20	210						
10		52.5	12.8	1.8	5.9	12.3	5.5	0.1	13.7						
11		22.6	9.4	5.1	10.2	7.8	19.4	11.0							
COLUMN															
TOTAL		509	298	79	127	348	61	181	1890						
TOTAL		31.6	16.6	4.9	7.9	21.5	3.8	11.3	100.0						

* My Brother Is A Genius

Patterns for fourth grade readers of the standard story are very similar.

With 21.4% of all miscues corrected and 12.3% unsuccessful attempts, fourth graders show certain contrasts, contained in Table 4-13:

Table 4-13
ACCEPTABILITY AND CORRECTION: FOURTH GRADE GROUP

	% Fully Acceptable		% Fully Unacceptable		% Acceptable Only With Prior	
	Syntactic	Semantic	Syntactic	Semantic	Syntactic	Semantic
Successful Correction	16.6	14.5	24.6	15.1	39.1	37.1
Unsuccessful Correction	14.4	9.9	10.9	18.7	4.8	7.6

In this grade, again there is a much stronger tendency to attempt to correct miscues which are semantically and/or syntactically unacceptable than acceptable with highest rate of attempt and greatest success with miscues acceptable only with prior text.

In second, fourth and sixth grade groups, unsuccessful corrections exceed successful corrections for fully semantically unacceptable miscues, but not for fully syntactically unacceptable ones. Since any miscue which is fully unacceptable syntactically must also be unacceptable semantically, semantically unacceptable miscues include syntactically unacceptable ones. It appears that if both syntax and meaning are unacceptable, attempts at correction are more likely to be successful than if syntax is at least partially acceptable but meaning is not. Perhaps when both are unacceptable, the reader tries a whole new tack while if syntax is partially or fully acceptable but meaning is not, then the reader clings to prediction of an alternate syntactic structure, producing an unsuccessful correction. Another factor which may be involved is that miscues which produce non-words are often syntactically acceptable but semantically unacceptable. Unsuccessful attempts to correct non-words would show up in these statistics. 7.4% of second graders' miscues on story 44, 20% of miscues by fourth graders on story 51, and 13.1% of sixth grade miscues on story 53 were non-words.

Patterns of sixth graders on the standard story (53) follow the same tendencies as the other two grades (see Table 4-14). Overall correction for this grade is 21.3% and unsuccessful is 13.8%.

Table 4-14
ACCEPTABILITY AND CORRECTION: SIXTH GRADE GROUP

	% Fully Acceptable		% Fully Unacceptable		% Acceptable Only With Prior	
	Syntactic	Semantic	Syntactic	Semantic	Syntactic	Semantic
Successful Correction	15.8	18.3	28.8	16.5	42.1	38.9
Unsuccessful Correction	13.6	7.8	17.7	22.6	8.7	9.4

We see the same tendency to have more correction of unacceptable miscues than acceptable and greatest attempts at correcting and success at correcting miscues acceptable with prior text. Again, about half of all unacceptable miscues involve attempts at correction.

It should be remembered that if a partial attempt precedes a miscue, an unsuccessful correction is coded. If, however, a partial precedes a successful correction, then no miscue is recorded since the first full attempt was successful.

Many of these non-miscue self-corrections could involve acceptability with prior text. The impetus to correct is likely to be the reader's rejection of his/her first hypothesis which may be consistent with prior text but disconfirmed by following text. The reader is processing even while still generating an oral representation of already processed text. The reader makes a prediction, processes on that basis, becomes aware of disconfirming cues and self-corrects without completing the oral representation of the miscue. These phenomena, of course, are closely related to the evidence in the data of the reader's strong tendencies to correct successfully when the miscue is acceptable with what precedes but not what follows.

Correction and Phonemic Proximity

Two trends are evident across groups and grades in looking at the relationship of correction to degree of phonemic proximity. If a group shows any pattern, it will be to correct or attempt to correct miscues with low phonemic proximity (coded 0, 1 or 2). Further, corrections of miscues with low phonemic proximity are more likely to be successful than those with moderate (3, 4, 5) or high proximity (6, 7, 8 or 9). (See section on phonemic proximity.) (See Table 4-15)

Among second grade groups that showed high correction of low proximity miscues are: M2 (both stories), AR2 (both), DE2 (both), MB2 (both), and HP2 on the relevant story only. HS2 and TS2, though not correcting disproportionate rates of low proximity miscues, do show the pattern of low proportions of unsuccessful correction attempts on such miscues. AP readers show high proportions of unsuccessful corrections except on the low proximity miscues in the standard story. (See Table 4-15.)

The high rate of correction of low proximity miscues is shown by the following fourth grade groups: HS4 (both stories), NA4 (both), AR4 (both), TS4 (standard only), DE4 (relevant only), AP4 (standard only), MB4 (both), HP4 (standard only). That means every fourth grade group shows this tendency on at least one story. The tendency for high success in attempted corrections of low proximity miscues is also strong among fourth grade groups. (See Table 4-16)

Among sixth grade groups the trend toward higher rate of attempted correction of low proximity miscues is present but weaker. NA6 show it on the relevant story only, HS6 on both, AR6 on the standard only and AP6 on both. TS6, DE6, MB6 and HP 6 do not show the trend. The tendency toward high rate of success in correcting low proximity miscues is still strong, however. In fact, 4 groups show no unsuccessful corrections of such miscues and two show 3%.

One type of low phonemic proximity miscue is a syntactically-
semantically predictable one that can't fit with what follows. Here are some examples all produced by the same reader:

③ was
He had been experimenting... (S51, lines 0101, 0102)

Liloa gave ③ his
each boy a long look. (S69, line 0818)

③ that
What does he know (S69, line 0905)

Table 4-15

CORRECTION AND PHONEMIC PROXIMITY: SECOND GRADE GROUP

NA	Standard									Relevant								
	Low Prox			Medium Prox			High Prox			Low Prox			Medium Prox			High Prox		
	Corr 32	Unsuc 18	Att 50	Corr 28	Unsuc 16	Att 44	Corr 21	Unsuc 6	Att 27	Corr 34	Unsuc 6	Att 40	Corr 20	Unsuc 18	Att 38	Corr 6	Unsuc 11	Att 17
HS	33	7	40	26	10	36	32	12	44	27	7	34	13	28	41	13	11	24
AR	28	18	44	15	20	35	15	17	32	67	9	76	22	27	49	23	21	44
TS	33	14	47	29	21	50	25	17	42	50	9	59	43	5	48	46	18	64
DE	42	5	47	33	12	45	16	11	27	54	6	60	28	10	38	21	6	27
AP	27	17	44	18	21	39	19	23	42	7	7	14	11	39	50	12	17	29
MB	32	13	45	14	19	33	13	13	26	16	18	34	9	10	19	2	17	19
HP	24	12	36	23	14	37	19	14	33	57	6	63	23	10	33	17	5	22

Corr = Percent Corrected

Unsuc = Unsuccessful Attempts

Att = Total Attempts

Table 4-16

CORRECTION AND PHONEMIC PROXIMITY: FOURTH GRADE GROUP

NA	Standard									Relevant								
	Low Prox			Medium Prox			High Prox			Low Prox			Medium Prox			High Prox		
	Corr 12	Unsuc 10	Att 22	Corr 4	Unsuc 12	Att 16	Corr 7	Unsuc 17	Att 24	Corr 26	Unsuc 0	Att 26	Corr 18	Unsuc 11	Att 29	Corr 10	Unsuc 6	Att 16
HS	38	6	44	24	16	40	17	22	39	25	19	44	22	18	40	11	28	39
AR	48	8	56	27	20	47	14	23	37	59	0	59	26	26	52	13	28	41
TS	68	4	72	34	13	37	21	14	35	32	0	32	30	15	45	16	14	30
DE	30	14	44	38	14	52	21	0	21	69	6	75	45	7	52	22	12	34
AP	32	21	53	29	15	44	25	12	37	37	4	41	37	13	50	27	16	43
MB	28	19	47	29	8	37	16	14	30	33	11	44	14	11	25	16	13	29
HP	39	13	52	15	5	20	17	8	25	20	4	24	14	21	35	16	8	34

Corr = Percent Corrected
 Unsuc = Unsuccessful Attempts
 Att = Total Attempts

Table 4-17

CORRECTION AND PHONEMIC PROXIMITY: SIXTH GRADE GROUP

	Standard									Relevant								
	Low Prox			Medium Prox			High Prox			Low Prox			Medium Prox			High Prox		
	Corr 28	Unsuc 9	Att 27	Corr 13	Unsuc 33	Att 45	Corr 19	Unsuc 26	Att 45	Corr 42	Unsuc 8	Att 50	Corr 17	Unsuc 33	Att 50	Corr 20	Unsuc 20	Att 40
NA																		
HS	27	18	45	6	19	25	20	16	36	41	10	51	11	14	25	20	13	33
AR	35	24	59	9	22	31	14	19	33	26	0	26	8	22	30	2	16	18
TS	29	3	32	22	13	35	20	12	32	24	0	24	26	9	35	23	12	35
DE	28	8	36	18	27	45	26	10	36	25	10	35	28	23	51	17	16	33
AP	47	10	57	23	25	48	19	18	37	46	0	46	23	21	44	18	20	38
MB	24	0	24	23	23	46	19	16	35	17	9	26	8	12	20	15	12	27
HP	35	3	38	21	9	30	33	11	40	27	7	34	35	9	44	25	10	35

Corr = Percent Corrected
 Unsuc = Unsuccessful Attempts
 Att = Total Attempts

These miscues relate to the ones more likely to be corrected, because they are semantically or syntactically only acceptable with prior.

If this phenomenon is greater among fourth graders than second or sixth, it may be that sixth graders' low phonemic proximity miscues are more fully acceptable and thus not corrected. One reason miscues with moderate and high proximity may involve higher proportions of unsuccessful correction is that they will include many sounded-out non-words. These phonemic "near-misses" ironically show both the readers' phonics ability and the limits on phonics as a strategy.

It is interesting that no strong pattern for these phenomena separate English dialect and second language readers or highlight any one group. AR readers at all grades on both stories show them; NA2 and NA4 readers do too, but sixth graders show them only on one story. HS4 and HS6 show them on both stories but second graders show only the high degree of success in correction attempts. Only TS4 on one story show higher correction rate on low proximity miscues. If we remember that our Texas group probably are closest to native speakers, then we could argue that the phenomena are stronger in second language groups.

Among English dialect groups MB readers in second and fourth grades show both trends. Sixth graders show only the secondary trend of more successful correction of low proximity miscues. None of the other groups show that much consistency, though all show both phenomena in at least one grade and story.

Part 4 - Semantic and Syntactic Acceptability

We judge the effect of miscues on syntactic and semantic acceptability of the resultant sentences before correction.

Though these are judged independently we follow a decision-making principle that no miscue may be judged semantically acceptable unless it is also syntactically acceptable. The theoretical premise we follow is that one can have grammar without meaning, but not meaning without grammar. The Marlup was poving his kump is grammatical nonsense. So is this miscued sentence:

After winding the wire around the bottom of the ^{bottle}bulb, he ^{tapped}taped it

in place. (S51, lines 0609, 0610)

The sentence with miscues contains a real word substitution that is grammatically acceptable, though it only makes sense with prior text. And it contains a non-word, which the reader's intonation tells us he is treating as a noun, the object of the preposition of. Non-words are judged grammatically acceptable if they retain appropriate inflection of endings and/or intonation. Many non-words do so.

There is another more pragmatic reason why, in the research we hold to this rule, that only grammatical sequences may be meaningful: Any other decision would lead us to arbitrarily deciding when a non-grammatical sequence makes sense and when it doesn't.

We judge acceptability by the rules of the subjects' dialect. Thus, deletion of ed on past tense verbs by MB readers is treated as an acceptable null form past tense marker.

With our second language groups, we recognize a special problem. Any particular subject may be at a transitional stage as far as his/her development of control of English syntax. What is grammatical or not is much harder to determine. Furthermore, the readers may be developing special strategies for getting meaning from partially processed syntax; in fact, they may be using their sense of meaning to assign appropriate syntax. In this research we offer only a caution and no solution for this problem.

Gap Between Syntactic and Semantic Acceptability

There is a positive significant correlation in most comparisons between syntactic and semantic acceptability in this study. Second

grade readers of S44 had an r of .66 (sig. .001). On all stories the correlation (r) was .72 (sig. .001). Fourth grade readers have a non-significant r on S51, but .34 (sig. .003) on all stories.

Sixth grade r for story 53 is .62; for all stories it is .53. The fact that these correlations are moderate in most cases and low among fourth graders is indicative of the pattern of variable gaps between percent of miscues syntactically and semantically acceptable.

The group mean data illustrate this phenomenon. Syntactic acceptability mean for all second graders is 60.27% and semantic acceptability is 45.46%. (See Table 4-18) Syntactic group means on the standard story range from HS2 51.6% to DE2 67%, and on their culturally relevant stories from TS2 49.3% to HP2 71%. Semantic acceptability mean varies from MB2 36% to DE2 57.8% on the standard story and HS2 34.3% to DE2 54.5% on their second stories. Dialect groups as a whole have means on the standard story just slightly above second language groups: syntactic 59%, semantic 45%, compared to 62 and 47.5%. On the culturally relevant stories, second language group mean drops 5% on both variables, whereas dialect group mean goes up to 66% on syntactic acceptability while remaining the same for semantic.

The gap between semantic and syntactic acceptability tends to be similar for both stories read for each group. The NA2 group is low for both stories: a difference of about 7% on each. This may reflect their high percent of omissions which would tend to be both semantically and syntactically unacceptable. The AR2 group is high with 21% difference on S44 and 18% on their second story. In both stories, semantic acceptability is about 40%, so it is the syntactic acceptability which varies.

HS2 shows a pattern where syntactic is higher and semantic lower on the second story so the differences are 13% and 20%. TS2 drops in both variables showing the biggest drop in syntactic acceptability from 65 to 49%. AP2 has virtually identical syntactic acceptability for S44 and their second story (61.7, 61.8), but drops from 46.3 to 39.2%, so the gaps between the variables are 15 and 22%. MB2 is higher in both variables on their second story, but the difference on semantic acceptability is most dramatic: 53.3 compared to 36.6%. (See Table 4-18)

Fourth grade dialect groups have comparable means to second language groups; overall just above 62%, but semantic means on both standard and culturally relevant stories are notably higher, about 10 percentage points for dialect groups. On the relevant stories, second language groups have a mean syntactic acceptability of 62%, comparable to the 63% of the dialect groups. Yet semantic mean is 48% for dialect groups and 32% for second language.

Table 4-18

RANGES AND MEANS OF SYNTACTIC AND SEMANTIC ACCEPTABILITY:
SECOND GRADE GROUP

Standard Stories										
GROUP	NA	HS	AR	TS	Total 2nd lang.	DE	AP	MB	HP	Total Dialect
Story Number	26.28	26.28	44	44		44	44	44	44	
Mean Syn.Acc.	59.5	51.6	61.0	65.0	59	67.0	61.7	57.8	62.0	62
Range-Syn.Acc.	44.0-76.1	41.3-62.5	50.0-72.0	42.9-76.5		62.0-70.0	53.8-74.0	46.0-66.7	44.0-73.5	
Mean Sem.Acc.	53.0	38.1	40.0	47.6	45	57.8	46.3	36.6	49.1	47.5
Range-Sem.Acc.	38.0-71.7	29.3-53.1	38.0-44.0	31.2-64.7		46.0-63.2	38.0-50.0	28.0-47.1	26.0-64.1	
Culturally Relevant Stories										
Story Number	68	68	68	86		82	75	71	67	
Mean Syn.Acc.	54.6	54.1	57.4	49.3	54	64.5	61.8	66.1	70.9	66
Range-Syn.Acc.	30.0-66.0	37.2-66.0	56.4-60.0	44.0-56.0		50.0-80.6	36.0-80.0	55.8-73.8	58.0-84.0	
Mean Sem.Acc.	47.2	34.3	39.8	36.7	40	54.5	39.2	53.3	53.9	48
Range-Sem.Acc.	20.0-64.0	30.6-40.0	33.3-52.9	24.0-54.0		39.6-77.4	28.0-50.0	38.5-61.9	44.0-67.4	
Group Means										
Syn. Acc.	57.05	52.85	59.20	57.15		65.75	61.75	61.95	66.45	60.27
Sem. Acc.	50.10	36.20	39.90	42.15		56.15	42.75	44.95	51.50	45.46

Table 4-19

RANGES AND MEANS OF SYNTACTIC AND SEMANTIC ACCEPTABILITY:
FOURTH GRADE GROUP

Standard Stories										
GROUP	NA	HS	AR	TS	Total 2nd lang.	DE	AP	MB	HP	Total Dialect
Story Number	51	51	51	51		51	51	51	51	
Mean Syn.Acc.	57.8	63.8	67.0	56.9	61.1	60.8	65.5	66.9	65.7	64.7
Range-Syn.Acc.	44.0-72.0	55.1-71.4	54.9-80.4	49.0-66.7		56.9-70.2	57.1-74.0	57.5-82.0	62.0-70.0	
Mean-Sem.Acc.	34.6	29.7	35.5	35.1	33.7	42.8	44.8	54.8	41.8	44.9
Range-Sem.Acc.	22.4-42.0	24.0-35.4	29.4-44.0	28.0-38.8		36.2-48.0	35.4-51.0	36.0-74.0	36.0-51.0	
Culturally Relevant Stories										
Story Number	83	69	87	85		49	74	72	69	
Mean Syn.Acc.	57.9	63.7	59.5	66.7	62	50.3	65.2	77.1	59.7	63.1
Range-Syn.Acc.	52.0-69.4	60.0-66.0	42.0-74.5	46.0-82.0		40.0-56.9	58.0-74.0	70.0-80.4	52.0-64.7	
Mean Sem.Acc.	35.7	28.7	31.5	32.4	32	43.8	45.3	65.2	36.4	47.7
Range-Sem.Acc.	26.0-46.9	16.3-38.0	18.0-43.1	20.0-42.0		32.0-50.0	40.0-49.0	58.0-68.6	29.4-54.0	
Group Means										
Syn. Acc.	57.85	63.75	63.25	61.80		55.55	63.35	71	62.70	62.7
Sem. Acc.	35.15	29.20	33.50	33.75		43.30	45.05	59	39.10	39.5

Syntactic mean varies in a narrow range for all groups on the standard story from TS4 56.9% to AR4 67%. On second stories one dialect group, DE4, drops to 50.3% in syntactic acceptability, but their semantic acceptability is 43.8%, well above the second language groups. MB4 shows 77.1% syntactic acceptability and 65.2% semantic on their second story.

Semantic acceptability means for second language groups on all stories are between HS4 28.7% and NA4 35.7%. Furthermore, there is little variation between semantic means on the two stories read for any second language group, though AR4 and TS4 show moderate difference between their two stories on syntactic acceptability.

Dialect groups' semantic means range between HP4 36.4% and MB4 65.2%. HP4 has moderately lower semantic means on their second stories as compared to the standard.

The very wide gap between the two variables, 30% for our fourth grade second language groups, seems to be at least partially the result of the high percent of non-words produced by these groups. HS4, for example, has a syntactic mean of 63.8% and semantic of 29.7% on Story 51 and 67.7 and 28.7% on Story 69. 37.9% of nondialect miscues for the HS4 group are non-word substitutions on S51 and 26.6% on S69. These non-words may be syntactically acceptable, but only if they retain inflection and/or appropriate intonation.

Here are examples from one HS4 subject:

^{4 instructional misuse}
Freddie made an interesting mixture (S51, line 0226)

^{4 terrible}
In a terrible voice he demanded, (S69, line 0415)

^{4 barely}
It was barely more than a whisper (S69, lines 0510, 0511)

(See Table 4-19)

Sixth grade groups show a pattern similar to the fourth grade. Syntactic means are quite comparable for all groups while semantic acceptability means for dialect groups are notably higher than second language groups. The pattern is sharpest on the standard story 53. Syntactic mean is 64% for second language groups and 69% for dialect, but semantic means differ much more sharply, 37.5% compared to 52%. No second language group is above 41% semantically acceptable. No dialect group is below 49%.

Table 4-20

RANGES AND MEANS OF SYNTACTIC AND SEMANTIC ACCEPTABILITY:
SIXTH GRADE GROUP

Standard Stories											
GROUP	NA	HS	AR	TS	Total 2nd lang.	DE	AP	MB	HP	Total Dialect	Total Grade
Story Number	53	53	53	53		53	53	53	53		
Mean Syn.Acc.	61.6	63.5	71.0	58.7	64	70.7	67.9	70.5	66.3	69	
Range-Syn.Acc.	40.8-79.6	52.0-80.0	50.0-82.0	48.0-64.0		64.0-76.0	60.8-74.0	68.0-77.5	62.0-70.6		
Mean-Sem.Acc.	35.9	41.0	35.5	36.8	37.5	54.6	49.5	51.3	51.3	52	
Range-Sem.Acc.	24.5-46.9	26.0-56.0	18.0-46.0	32.0-50.0		46.0-66.0	47.1-52.0	44.2-61.2	46.9-55.1		
Culturally Relevant Stories											
Story Number	81	70	88	77		84	76	73	70		
Mean Syn.Acc.	70.5	73.0	73.9	69.4	72	81.8	68.3	68.3	70.8	72	
Range-Syn.Acc.	62.0-80.0	66.0-80.0	66.0-78.0	60.0-78.4		70.0-90.0	65.3-74.0	59.1-80.0	66.7-79.6		
Mean Sem.Acc.	38.5	44.5	33.7	58.9	44	66.2	54.1	40.2	43.8	51	
Range-Sem.Acc.	30.0-48.0	34.0-66.0	28.6-40.0	51.0-68.6		56.0-80.0	42.0-62.0	32.0-52.8	33.4-56.9		
Group Means											
Syn. Acc.	66.05	68.25	72.45	64.05		76.25	68.10	68.15	68.55		68.98
Sem. Acc.	37.20	42.75	34.60	47.85		60.40	51.80	45.75	47.55		45.99

On culturally relevant stories, all groups except MB6 have higher syntactic acceptability than on the standard story. Three of the second language groups show rather comparable semantic acceptability on both stories but the TS6 group has 58.9% as compared to only 36.8% it has on story 53, while 44.5% is the highest any other sixth grade second language group achieves on either story.

Dialect groups show much more variation in semantic acceptability on their second stories and in comparing both stories read. MB6 and HP6 drop appreciably on their second stories. DE6 goes up from 54.6% to 66.2%. It's also the only dialect group in sixth grade that increased in syntactic acceptability, up to 81.8%. No reader in that group reading that story was below 70% syntactic acceptability.

Gap between the variables is, as among fourth grade groups, considerably greater in second language groups than in dialect groups, particularly on the standard story, story 53.

AR6 shows a gap of 71% to 35.5% on story 53 and 73.9% to 33.7% on story 88.

Among dialect groups MB6 and HP6 show wide gaps in their second stories as semantic acceptability drops while syntactic stays in the same range.

TS6 shows a narrow gap of only 10% on story 77, its second story.

Overall Comparisons

Syntactic acceptability is moderate, even among our second graders. Considering their varied language backgrounds this is truly notable. Only a few second grade subjects have less than 40% syntactically acceptable. Scattered readers among fourth graders fall between 40 and 50% syntactic acceptability: one each in NA4, AR4, DE4, TS4. All others are above 50%. A handful of sixth grade second language readers fall below 60% acceptable. All the rest and all dialect group readers are above 60%. Syntactic mean for all second graders is 60.27%, for all fourth graders that's up to about 63% and for all sixth graders, the mean reaches near 70%. There is not a notable difference between dialect and second language groups above second grade. These readers are coping with the syntax. They compare with average and high readers from our previous studies.

Semantic acceptability is a different story. Some second language readers in every grade fall below 30%, a few drop below 20%. Second grade second language groups have slightly higher semantic accepta-

bility than fourth. They're reading easier material, but these figures may also reflect lack of risk-taking among fourth graders. Even in sixth grade the mean for all readers is only 45%.

Still these figures are comparable to our past study. In our 1973 study, average second graders had about 40% semantic acceptability; average fourth graders had about 35%; average sixth graders had 63%. Low groups in that study had less than 35%, even in grades 8 and 10. (Goodman and Burke, 1973)

Syntactic and Semantic Change

Table 4-21 shows syntactic and semantic change for all groups. We judge these variables only for semantically and/or syntactically acceptable miscues.

What this table shows is that these vary only within a narrow range for all groups at all grades.

Essentially if a miscue is acceptable, either semantically or syntactically, it is unlikely to result in very much semantic or syntactic change respectively.

Table 4-21

SYNTACTIC AND SEMANTIC CHANGE

NA	2nd Grade				4th Grade				6th Grade			
	Standard		Relevant		Standard		Relevant		Standard		Relevant	
	Syn	Sem	Syn	Sem	Syn	Sem	Syn	Sem	Syn	Sem	Syn	Sem
	7.37	6.9	6.99	6.95	7.84	5.91	7.73	6.53	7.6	7.3	7.9	6.6
HS	7.0	6.0	7.6	5.9	8.3	6.4	8.1	6.1	7.5	6.8	7.5	6.3
AR	7.76	6.17	8.30	6.44	8.16	6.22	8.0	6.92	7.8	6.6	8.4	6.5
TS	7.62	6.69	6.82	6.30	7.73	6.52	8.31	6.32	7.6	6.3	7.1	6.5
DE	7.54	6.67	7.26	6.4	6.99	6.36	7.37	7.07	7.2	6.6	7.7	7.0
AP	7.99	6.10	7.89	6.31	7.83	6.52	7.81	6.83	7.6	6.9	7.3	7.0
MB	7.57	6.21	7.59	5.90	7.12	6.87	7.29	6.93	7.32	6.62	8.33	7.35
HP	7.35	6.78	7.6	6.55	7.3	6.28	7.36	6.10	7.4	6.5	7.6	6.7
Mean Total	7.63	6.43			7.65	6.39			7.50	6.7		

Part 5 - Other Syntactic Aspects

Syntactic acceptability is judged according to whether it is acceptable, partially acceptable or unacceptable.

Acceptable miscues may be either (4)* fully acceptable in the passage; (3)* acceptable only in the sentence; (6)* acceptable in the passage except for other miscues in the sentence; (5)* acceptable in the sentence except for other miscues.

Partially acceptable miscues are (1)* acceptable with the preceding pattern, or (2)* acceptable with what follows.

In general, the great majority of syntactically acceptable miscues are fully acceptable (4). (See Tables 4-22, 23, 24.) Few miscues are syntactically acceptable only in the sentence (3 or 5). That's because most syntactically acceptable sentences are passage acceptable. A moderate percentage of miscues are fully acceptable except for compounding miscues in the same sentence (6). In a few cases, these miscues become a substantial percentage; 33.7% of AP2 miscues on their second story are such miscues. That exceeds their 27% fully acceptable. AR6 and HP4 produce 33.2% and 27.4% respectively, almost as much as the 40.2% and 32.3% fully acceptable. These groups have fewer miscues coded 6 on the standard stories, but the combined total of 4 (fully acceptable) and 6 (acceptable in the passage except for other miscues in the sentence) is very similar on the two stories.

NA4 has 26.1% coded 6 and 27.6% coded 4 on their standard story; again the combined total of 4 and 6 on the second story is about the same as that on the standard story.

In most groups the combined total of 4 and 6 are about the same for both stories. This is not true for TS2, which has much fewer fully acceptable miscues on their second story than their standard story, and much higher partially acceptable. A similar pattern shows for fourth grade groups DE4, TS4 and MB4. In each case percent of miscues acceptable with prior is higher (1) on the story with fewer acceptable miscues (4 and 6).

However, among sixth grade groups NA6, HS6, and DE6, it is the percentage of unacceptable miscues which is higher on the story with fewer fully acceptable miscues.

*These are the numbers of the subcategories in the taxonomy used for computer coding (See Appendix).

Table 4-22

SYNTACTIC ACCEPTABILITY: SECOND GRADE GROUP

Degree of Acceptability		Standard Story								Culturally Relevant Story							
		NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
not	0	21.2	27.8	21	11.2	14.9	17.8	19.2	17	21.9	23.5	14.6	15.6	16.5	25.1	20.7	16.4
with prior	1	16.8	18.4	15	20.7	14.9	15.3	14.6	16	19.1	16.9	25.6	31.2	17.1	12.1	12.6	10.4
with following	2	2.8	3.8	3	1.8	3.2	5.0	8.1	5.9	5.6	4.9	2.4	4.0	3.5	1.0	2.5	3.5
in sentence only	3	1.7	.6	.5	.6	.5	.5	.5	.5	1.7	2.2	3.7	1.0	1.8	1.0	.5	.5
fully	4	48.0	38.0	44.5	57.4	51.1	44.1	41.9	42.6	39.3	33.3	43.9	35.7	54.1	27.1	41.4	60.2
in sentence except for other miscues	5	1.7	.6	1.0	--	--	2.0	1.0	.5	.6	--	--	.5	1.2	--	3.0	1.0
fully except for other miscues	6	7.8	10.8	15.0	8.3	15.4	15.3	14.6	17.6	11.8	19.1	9.8	12.1	5.9	33.7	19.2	8.0

Table 4-23

SYNTACTIC ACCEPTABILITY: FOURTH GRADE GROUP

Degree of Acceptability	Standard Story									Culturally Relevant Story								
	NA	HS	AR	TS	DE	AP	MB	HP		NA	HS	AR	TS	DE	AP	MB	HP	
not	0	23.1	18.8	12.8	16.1	11.6	12.1	13.5	17.1	18.6	18.2	18.7	12.9	11.1	10.0	10.9	18.9	
with prior	1	14.1	14.2	16.7	23.6	24.7	19.7	17.5	14.6	20.6	11.1	18.2	16.4	32.2	16.9	10.9	15.9	
with following	2	5.0	3.6	3.4	4.0	3.0	2.5	2.5	3.0	3.0	7.1	3.4	4.0	6.5	8.0	1.0	5.5	
in sentence only	3	2.5	--	1.0	2.0	.5	1.0	2.0	--	1.5	.5	1.0	--	1.0	1.0	2.0	--	
fully	4	27.6	49.7	52.7	46.2	43.4	53.0	54.0	48.7	38.2	41.9	44.3	56.7	42.2	49.8	61.7	32.3	
in sentence except for other miscues	5	1.5	--	1.0	.5	1.0	.5	--	1.0	.5	.5	.5	--	.5	1.5	1.5	--	
fully except for other miscues	6	26.1	13.7	12.3	7.5	15.7	11.1	10.5	15.6	17.6	20.7	13.8	10.0	6.5	12.9	11.9	27.4	

Table 4-24

SYNTACTIC ACCEPTABILITY: SIXTH GRADE GROUP

Degree of Acceptability		Standard Story								Culturally Relevant Story							
		NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
not	0	19.2	16.9	14	16.9	10.1	11.9	10.3	13.6	12.5	8.5	11.1	10.0	4.5	12.8	11.5	10.1
with prior	1	13.1	13.9	11	20.9	16.2	15.8	17.7	17.6	15.5	14.5	12.1	17.0	11.4	13.3	15	16.2
with following	2	5.6	5.5	4	3.5	3.0	4.5	1.5	2.5	1.5	4.0	3.0	3.5	2.5	5.6	5.5	3.0
in sentence only	3	--	1.5	--	1.5	1.0	4.0	3	.5	--	2.0	.5	2.0	.5	1.0	1.5	--
fully	4	41.4	43.8	54	46.8	56.6	54.5	58.1	54.8	56	53.0	40.2	59.5	71.1	50	50.5	54.0
in sentence except for other miscues	5	1.0	--	.5	1.0	1.0	--	.5	--	.5	.5	--	.5	--	--	.5	--
fully except for other miscues	6	19.7	18.4	16.5	10.9	12.1	9.4	8.9	11.1	14.0	17.5	33.2	7.5	10.0	17.3	15.5	16.7

Most partially acceptable miscues are acceptable with prior text. As a matter of procedure we consider acceptability with the following text only if they are not acceptable with prior. That means that some miscues acceptable with either part of the sentence are coded (1) with prior and not (2) with following. For most groups about 20% are partially acceptable (1 and 2 combined). AR2 and TS2 groups are higher: 28% and 35% on their second story. AP2, MB2 and HP2 have 15% or less partially acceptable on their second story.

TS4 and DE4 have about 28% on the standard story. DE4 has almost 39% on their second story. MB4 has only 12% on their second story.

AR6 has about 15% partially acceptable on both stories. DE6 has 14% on their second story.

Some second grade groups have 20% or more of syntactically unacceptable miscues. These include NA2 and HS2 on both stories, AR2 on the standard story and AP2 and MB2 on the second story. Among the other groups only NA4 reaches 20% and that's on the standard story only.

Only one second grade group, TS2, falls below 14% unacceptable (standard story). Among fourth grade groups, DE4, AP4, MB4 groups do so on both stories and AR4 does on the standard. Only HP4, among dialect groups, produces more than 14% syntactically unacceptable miscues.

Among sixth grade groups, all dialect groups are below 14% unacceptable on both stories. All groups are below 14% on their relevant stories.

A tendency for syntactically unacceptable miscues to diminish from grade to grade shows in this data. Mean for second grade is 18.5%, for fourth grade 15.2% and for sixth grade 12.1%.

Transformations

The author, in our theoretical model, has a meaning, a deep structure and a set of transformational rules for generating the surface representation. With these, the author encodes meaning in print. The reader, in decoding, must interact with the print, using rules to transform surface representation, create a deep structure and construct meaning.

In the process the reader may: (a) create a deep structure which matches the author's; (b) produce a different deep structure, one that differs in one or more ways from the author's; (c) create a matching deep structure but use different rules from the author's. That's possible where author and reader use different dialects. It's also possible when authors use special rules - those that apply to poetry, for example; (d) use a matching deep structure and rules but exercise alternate available options: e.g., in, "He's the boy (that) I saw." That may or may not be present. Rules permit that option; (e) lose the deep structure altogether with no discernible alternative. That produces a syntactic garble.

From miscues, it is possible to see, by comparing OR to ER, how the syntax has or has not been transformed.

In miscue analysis, syntactic structures are judged equivalent or non-equivalent, independent of meaning: The man loves the woman has the same deep structure as The dog chases the cat.

Lester felt so sorry for him and Lester felt so sorry for the dog have different deep structures.

We judge that deep structure is lost only if it is not possible to see a deep structure that the reader is moving toward.

Here's an example:

©
He ^{pretended} patted him for a minute or two. (S74, line 0202)

Here AP-418 has corrected before completing a pattern but we can see a deep structure that she is moving toward: He pretended (something).

^{thought}
This thought was a constant worryment to him. (S74, lines 0319, 0320)

We code miscues as (0) a pattern with no change; (1) with a different deep structure; (2) with the same deep structure but alternate rules; (3) with the use of alternate optional rules; or (4) with lost deep structure. Tables 4-25, 26, 27 provide percentages of each.

Miscue percent with lost deep structure declines from grade to grade. Second grade mean is 14%, fourth grade 9.3%, sixth grade 8%. This, of course, reflects the data on unacceptable syntax since lost deep structures are syntactically unacceptable. Only among sixth grade groups reading the standard story (53) is there any notable contrast between dialect and second language groups. Dialect groups show lower percent of lost deep structure.

Table 4-25

TRANSFORMATIONS: SECOND GRADE GROUP

Deep Structure Change		Standard Story								Culturally Relevant Story							
		NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
no change	0	16.8	25	38	40.8	29.8	47.8	40.2	29.3	21.3	31.7	38.4	17.6	27.1	41.7	39.4	40.6
different deep structure	1	57.5	51.3	39	49.1	52.7	38.3	36.2	53.2	47.8	45.4	42.7	68.3	51.8	36.2	41.4	47.0
same but alternate rules	2	.6	1.9	2	1.2	--	.5	2.5	2.1	1.1	2.7	3.0	--	--	.5	1.5	1.0
same but optional rules	3	7.8	.6	.5	.6	4.3	--	1.0	2.1	11.2	1.6	3.7	3.0	5.3	--	1.0	.5
lost	4	17.3	21.3	20.5	8.3	13.3	13.4	20.1	13.3	18.5	18.6	12.2	11.1	15.9	21.6	16.2	10.9

Table 4-26

TRANSFORMATIONS: FOURTH GRADE GROUP

Deep Structure Change		Standard Story							Culturally Relevant Story								
		NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
no change	0	37.7	47.7	45.8	38.9	22.1	41.4	35.5	34.7	30.2	46	41.4	51.2	25.8	38.5	35.1	35.8
different deep structure	1	44.2	33.5	43.8	52.5	67.8	51.5	52.0	49.7	53.3	37.4	42.4	39.8	63.1	54	50.5	51.2
same but alternate rules	2	2.5	3.0	2.5	.5	--	1.5	.5	.5	3.0	1.5	2.5	1.0	--	1.5	2.0	--
same but optional rules	3	--	--	2.5	.5	2.5	.5	3.0	1.5	1.5	1.0	3.0	.5	3.5	2.5	6.9	1.0
lost	4	15.6	14.2	5.4	7.6	7.5	5.1	8.5	13.1	12.1	13.1	10.8	7.5	7.6	3.0	5.4	11.9

Table 4-27

TRANSFORMATIONS: SIXTH GRADE GROUP

Deep Structure Change		Standard Story								Culturally Relevant Story							
		NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
no change	0	32.3	34.3	40.5	32.8	35.9	34.2	35.1	29.6	41.5	34.5	58.3	30.0	48.8	34.2	47.5	40.9
different deep structure	1	50.5	50.7	46.5	52.2	54.5	56.9	54	58.3	47.5	56.5	32.2	62.5	46.3	56.1	33.3	49.5
same but alternate rules	2	1.5	3.0	1.0	.5	--	.5	1.5	1.0	2.5	3.5	3.5	.5	1.0	--	7.6	.5
same but optional rules	3	3.0	2.0	1.0	1.0	2.5	1.5	2.5	2.0	2.0	.5	1.5	1.0	1.0	1.0	1.0	2.5
lost	4	12.6	10.0	10.5	13.4	7.1	6.9	6.9	9.0	6.5	5.0	5.5	6.0	3.0	8.7	10.6	6.6

Navajo groups at all grades have moderately high deep structure loss except on the sixth grade culturally relevant story. That's the pattern for Hawaiian Samoan groups too. For both of these second language groups percent of lost structure is lower in each higher grade than the next lower grade.

Lost deep structure exceeds 20% only in a few second grade groups, HS2, AR2, MB2 on the standard story and AP2 on their relevant story. In many cases, these second grade lost deep structures are sentences with several non-words, omissions or inappropriate substitutions. Example: NA504

But Henry didn't ^{car}care (because) his friends . . . (S68, line 0102)

Over half of all miscues involve a shift to or toward another deep structure. Group means for such shifts range from 36.2% to 57.5% in second grade, 33.5% to 67.8% in fourth grade, and 32.2% to 58.3% in sixth. But most groups at all grades are in a narrower range from 40-55%.

Unchanged deep structure is more variable. In second grade, second language groups have mean percents of 28.8% compared to 41.8% for dialect groups. But mean for the standard story is about the same as it is for the relevant stories. Only TS2 and HP2 have means which differ much on the other two stories.

Mean percent of unchanged deep structure is the same for both stories among fourth grade groups, too, again excepting the TS group. But in fourth grade, dialect groups have a mean of 33.4, while second language groups' mean is 42.4%.

In sixth grade the mean for dialect groups and second language groups is about 38% across the two stories. Furthermore, mean for dialect groups and second language groups on the standard story is about the same, around 35%. Both kinds of readers have similar means for their relevant stories, about 42%. Two second language groups, NA6 and AR6, and three dialect groups, DE6, MB6 and HP6, have higher means on their second stories than the standard.

These figures seem to represent complex interactions between unchanged, retained and lost deep structure. Usually groups have more changed than unchanged deep structure, but there are groups in every grade where unchanged structure miscues exceed changed. In our 1973 study low groups through eighth grade had more changed than unchanged deep structure. Our average groups through eighth grade had about 35%

no transformation and 45% changed deep structure. In that study, groups of eighth and tenth graders showed consistent quite different transformation patterns on the two stories they read, suggesting that the story and not the readers are producing the difference.

Some of the sixth graders in this study show such contrasts on their culturally relevant stories though their patterns on the standard story (53) are quite similar. Only HS6 and AL6 do not show such contrast.

There are two subcategories in the transformation variable which are minor in terms of the percent of miscues they involve but quite interesting in terms of what they show about the reading process.

Miscues may have the same deep structure but a different set of rules, usually due to dialect difference, for producing a surface structure. Most common in this study was the rule in some dialects, Black English, for example, that provides for a null past tense marker or a null plural marker.

Tables 4-25, 26, 27 do not show many of these since they include only non-dialect miscues. Here are some examples of dialect transformations:

I dashed^{ed} out ^{of} the studio. (S53, line 1006)

The word definitions ^{was} were helping. . . (S53, lines 0703, 0704)

(we) ^{set} sat him up in bed and slapped^{ed}

his ^{whiskers} wrists lightly and revolved^{ed} his head. (S73, lines 0204, 0205)

Sometimes a writer uses special rules while the reader stays within the constraints of his dialect:

^{I'm sleepy}
"M' sleepy, Caleb," I said. (S73, line 1011)

Alternate options are results of the reader choosing a surface representation that involves an optional transformational rule. Here are some examples:

I had to stay ^{at} home with him. (S53, line 0212)

At is in the deep structure, but it may be deleted in the surface. The writer did delete it. The reader put it back.

If we do this it will be ^{us}a live show. (S53, lines 0518, 0519)

So ^{of us}(we) each got on one side. . . (S73, line 0204)

Some groups produce moderate amounts of transformation (2) miscues but only MB6 on their second story produce over 3.5%. Those are primarily miscues involving secondary dialect. A few groups of second graders, NA2 and DE2 on both stories, and AR2 on the second story, produce over 3%. DE4 and MB4 have over 3%. These may reflect story difference or language differences or both.

Alternate option transformations are below 3%, except in a few cases. NA2 has 7.8% and 11.2% on their two stories. MB4 has 6.9% on story 72, their relevant story.

MB315 has several such miscues in S72:

...to the edge of the strawberry patch. (There) he turned
(line 0205)

He put ^{the} corn in his right pocket (lines 0304, 0305)

The pond was in the woods, just beyond Mr. (line 0308)

Mudge's cabin, and Mr. Mudge lived at the edge of the woods.
(line 0309)

Mr. Johnson was nailing a board in the front step, and)
(line 0406)

Willie could hear the bangs of his hammer (lines 0407, 0408)

I keep wondering ^{about} what happened. (lines 0708, 0709)

A squirrel chattered from the hickory tree. ^{and} (line 1404)

The water lapped. . . (line 1405)

Several of these transformations involve clausal relationships. But this subject also has related miscues that involve clause transformations that are more complex as in these sentences from S72:

- 0201 He picked up his hat with its burden of
 0202 ^{then}
 ducks and hen, and held it level in the crook of
 0203 his arm. He bent down sideways to reach for his
 0204 pole and his catch of four fish.
 ^{and}
 0205 As he walked through the woods, there was a
 0206 bounce in his steps ^{As} and he whistled a tune.
 0207 At Mr. Mudge's cabin, he stopped.

The reader is picking his way through the text toward meaning, transforming to disentangle the clauses and dependencies and then reuniting them as he generates his own meaning and oral surface representation.

It's hard to argue against the utility, if not the reality of the deep structure concept, considering evidence such as that which this nine year old rural black child supplies.

Grammatical functions of Word Substitutions

We also consider the grammatical function of the Expected Response (ER) and the Observed Response (OR) in viewing readers' use of syntax (see Tables 4-28 to 4-30).

Here we'll consider the overall performance of our readers in each grade on the standard stories.

Table 4-28

GRAMMATICAL FUNCTION OF OBSERVED

AND EXPECTED RESPONSE: STORY 44*

Function	ROW COL	PCT PCT	INJUN	VERB	NOUN MOD	VERB MOD	FUNCTION	INDETERM	CONTRACT	ROW TOTAL
			1	2	3	4	5	6	7	
GRAMEXP			1	2	3	4	5	6	7	
NCUN	1		292	19	20	7	38	15	4	395
			73.9	4.8	5.1	1.8	9.6	3.8	1.0	40.1
			82.5	11.2	13.2	22.6	17.8	26.3	28.6	
VERB	2		13	125	6	7	11	14	2	178
			7.3	70.2	3.4	3.9	6.2	7.9	1.1	18.1
			3.7	73.5	4.0	22.6	5.1	26.9	14.3	
NOUN MODIFIER	3		27	4	112	1	23	6	0	173
			15.6	2.3	64.7	0.6	13.3	3.5	0.0	17.5
			7.6	2.4	74.2	3.2	10.7	11.5	0.0	
VERB MODIFIER	4		3	1	1	10	7	4	1	27
			11.1	3.7	3.7	37.0	25.9	14.8	3.7	2.7
			0.8	0.6	0.7	32.3	3.3	7.7	7.1	
FUNCTION WORD	5		17	21	12	6	132	4	4	196
			8.7	10.7	6.1	3.1	67.3	2.0	2.0	19.9
			4.8	12.4	7.9	19.4	61.7	7.7	28.6	
INDETERMINATE	6		0	0	0	0	0	9	0	9
			0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.9
			0.0	0.0	0.0	0.0	0.0	17.3	0.0	
CONTRACTIONS	7		2	0	0	0	3	0	3	8
			25.0	0.0	0.0	0.0	37.5	0.0	37.5	0.8
			0.6	0.0	0.0	0.0	1.4	0.0	21.4	
COLUMN TOTAL			354	170	151	31	214	52	14	986
			35.9	17.2	15.3	3.1	21.7	5.3	1.4	100.0

Table 4-29

GRAMMATICAL FUNCTION OF OBSERVED

AND EXPECTED RESPONSE: STORY 51*

Function	ROW COL	PCT PCT	NOUN	VERB	NOUN MOD IFIER	VERB MOD IFIER	FUNCTION WORD	INDETERM INATE	CONTRACT IONS	ROW TOTAL							
			1	2	3	4	5	6	7								
			I	I	I	I	I	I	I								
NOUN	1	I	379	I	25	I	37	I	3	I	34	I	14	I	9	I	501
		I	75.6	I	5.0	I	7.2	I	0.6	I	6.8	I	2.8	I	1.8	I	36.3
		I	78.6	I	9.0	I	18.4	I	5.9	I	12.3	I	23.3	I	32.1	I	
VERB	2	I	15	I	213	I	5	I	4	I	18	I	16	I	8	I	279
		I	5.4	I	76.3	I	1.8	I	1.4	I	6.5	I	5.7	I	2.9	I	20.2
		I	3.1	I	76.3	I	2.5	I	7.8	I	6.5	I	26.7	I	25.6	I	
NOUN MODIFIER	3	I	38	I	7	I	133	I	9	I	24	I	7	I	1	I	219
		I	17.4	I	3.2	I	60.7	I	4.1	I	11.0	I	3.2	I	0.5	I	15.9
		I	7.9	I	2.5	I	66.2	I	17.6	I	8.7	I	11.7	I	3.6	I	
VERB MODIFIER	4	I	11	I	3	I	12	I	31	I	14	I	10	I	0	I	81
		I	13.6	I	3.7	I	14.8	I	38.3	I	17.3	I	12.3	I	0.0	I	5.9
		I	2.3	I	1.1	I	6.0	I	62.8	I	5.1	I	16.7	I	0.0	I	
FUNCTION WORD	5	I	29	I	30	I	14	I	4	I	184	I	12	I	2	I	276
		I	10.5	I	10.9	I	5.1	I	1.4	I	66.7	I	4.3	I	0.7	I	20.0
		I	6.0	I	10.8	I	7.0	I	7.8	I	66.4	I	20.0	I	7.1	I	
CONTRACTORS	7	I	10	I	1	I	0	I	0	I	3	I	1	I	8	I	24
		I	41.7	I	4.2	I	0.0	I	0.0	I	12.5	I	4.2	I	33.3	I	1.7
		I	2.1	I	0.4	I	0.0	I	0.0	I	1.1	I	1.7	I	28.6	I	
COLUMN			482		279		201		51		277		60		28		1380
TOTAL			34.9		20.2		14.6		3.7		20.1		4.3		2.0		100.0

* Freddie Miller, Scientist

Table 4-30

GRAMMATICAL FUNCTION OF OBSERVED

AND EXPECTED RESPONSE: STORY 53*

Function	PCW PCI		NOUN		VERB		NOUN MOD		VERB MOD		FUNCTION WORD		INDETERMINATE		CONJUNCTIONS		TOTAL	
	CCL	ECT	I	1	I	2	I	3	I	4	I	5	I	6	I	7		
NOUN	1		I	314	I	30	I	13	I	1	I	38	I	17	I	11	I	224
		I	74.1	I	7.1	I	3.1	I	0.2	I	0.0	I	4.0	I	2.6	I	24.9	
		I	72.5	I	11.0	I	7.6	I	3.4	I	12.8	I	10.8	I	20.2	I		
VERB	2		I	29	I	210	I	5	I	5	I	24	I	8	I	6	I	298
		I	10.1	I	72.9	I	1.7	I	1.7	I	8.3	I	2.9	I	2.1	I	20.2	
		I	6.7	I	76.9	I	2.9	I	17.2	I	7.8	I	5.1	I	11.3	I		
NOUN MODIFIER	3		I	37	I	10	I	126	I	6	I	31	I	9	I	2	I	221
		I	16.7	I	4.5	I	57.0	I	2.7	I	18.0	I	4.1	I	0.8	I	15.5	
		I	6.5	I	3.7	I	74.1	I	20.7	I	10.1	I	5.7	I	1.8	I		
VERB MODIFIER	4		I	8	I	1	I	1	I	10	I	10	I	8	I	1	I	35
		I	22.9	I	2.9	I	2.9	I	28.6	I	28.6	I	11.1	I	2.9	I	2.5	
		I	1.8	I	0.4	I	0.6	I	34.5	I	3.3	I	2.5	I	1.0	I		
FUNCTION WORD	5		I	31	I	13	I	19	I	7	I	187	I	9	I	15	I	221
		I	11.0	I	4.6	I	6.8	I	2.5	I	66.5	I	3.2	I	5.3	I	10.7	
		I	7.2	I	4.5	I	11.2	I	24.1	I	60.9	I	5.7	I	28.3	I		
INDETERMINATE	6		I	5	I	1	I	5	I	0	I	2	I	105	I	0	I	115
		I	4.2	I	0.8	I	4.2	I	0.0	I	1.7	I	88.2	I	0.0	I	5.8	
		I	1.2	I	0.4	I	2.9	I	0.0	I	0.7	I	66.6	I	0.0	I		
CONJUNCTIONS	7		I	9	I	8	I	1	I	0	I	15	I	5	I	18	I	50
		I	16.1	I	14.3	I	1.8	I	0.0	I	26.8	I	8.9	I	32.1	I	3.6	
		I	2.1	I	2.9	I	0.6	I	0.0	I	4.0	I	3.2	I	34.0	I		
COLUMN TOTAL			833		273		170		29		307		157		53		1020	
TOTAL			30.4		19.2		11.9		2.0		21.6		11.0		3.7		100.0	

* My Brother Is A Genius

Among second grade readers of story 44, 74% of ER nouns in substitution miscues are replaced by nouns; 70% of verbs are replaced by verbs; 65% of noun modifiers are replaced by noun modifiers; 62% of function words are replaced by function words.

Verb modifiers, only 2.7% of total substitution miscues, have the most varied OR replacements: 11% nouns, 3.7% verbs, 25.9% function words, 14.8% indeterminate, and 3.7% contractions in addition to 37% same function. This variability reflects the movable nature of many adverbs.

Only a few words have ER functions which are indeterminate. But 5% of the OR functions are indeterminate.

Fourth grade readers of story 51 have miscues in which they replace 75.6% of nouns with nouns, 76.3% of verbs with verbs, 60.7% of noun modifiers with the same, 38.3% of verb modifiers with like function, 66.7% of function word with function words. Though no ER's have indeterminate function, 4% of OR's have, probably in lost structures or among non-word substitutions.

Patterns for sixth grade readers of story 53 are similar. Matching function substitutions are: nouns 74.1%, verbs 72.9%, noun modifier 57%, verb modifier 28.6%, function word 66.5%, indeterminate 88.2%. This story has strings of out-of-context words so 8.4% of the miscues are on words with indeterminate functions.

Contraction in all three stories result in scattered substitutions though most non-contraction substitutions are nouns or function words. In story 53, the sixth graders also substitute some verbs.

The percent of miscues with each grammatical function category is similar across the three stories except on nouns where story 44 has 40.1%, story 51 has 36.3% and story 53 has 29.8%. Verb modifier miscues on story 51 are relatively higher, 5.9% compared to 2.7% for story 44 and 2.5% for story 53. As we already noted, story 53 has 8.4% indeterminate.

Table 4-31
GRAMMATICAL FUNCTION IN STORIES
AND IN ER'S OF MISCUES

Function	Noun	Verb	Noun Modi- fier	Verb Modi- fier	Function Word	Indeterm- inate	Contra- ctions	
<u>Story No.</u>								
44	34.5 37.0	16.6 18.9	10.5 14.9	2.6 3.6	31.7 23.7	1.4 .6	.2 1.2	Story PCT Miscues PCT
51	30.8 31.4	17.6 22.0	10.2 13.4	4.6 5.9	32.7 23.2	0.0 ---	2.3 4.1	Story PCT Miscues PCT
53	29.5 25.4	18.3 23.9	10.7 13.5	4.0 5.8	31.2 20.3	2.0 6.9	2.2 4.2	Story PCT Miscues PCT

Table 4-31 compares ER of miscues with the distribution of ER functions in the standard stories. Percent of noun miscues exceed percent of nouns in second grade story 44; they're about equal in fourth grade story 51. In sixth grade, story 53, miscues are less. Verb miscues are somewhat higher than expected in each grade. Noun modifier miscues are half again as frequent as the occurrence of noun modifiers at all three grades. In all three grades, about 1/3 of all words are function words, but less than 1/4 of all miscues have ER's that are function words. Indeterminates are disproportionate in story 53.

Tables 4-32 and 4-33 show group percent for standard and relevant stories.

The sixth grade group illustrates that several factors are influencing involvement of different grammatical functions in miscues. There is remarkable similarity in most respects among all groups reading story 53. Miscues with noun ER's range narrowly from 22.5 to 29.4%, all a bit below the 29.5% of nouns in the story. Second language groups are at the high end, particularly if TS6 is excluded. Verb range is also small and moderately above the 18.3% in the story. Noun modifier range is 12%-15%, proportionately substantially higher than the 10.7% in the story. Verb modifiers also are higher than expected and narrow in range. Function word miscues, though more variable, 15.6-25.2%, are all well below the 32% in the story. Indeterminates are 9.3% of AR6 miscues and all range narrowly near or above 6%. Contractions are least variable clustering near the mean of 4.2%.

These latter, though minor, phenomenon demonstrate how story characteristics can influence involvement in miscues. Range of percent of contraction involvement on sixth grade second stories is from .1 to 9.1%. MB6, with 9.1 contraction miscues on story 73 has only 4.3% on story 53. Every reader in the group has more than double the rate of contraction miscues on story 73 as on story 53. HS6 and HP6 both read story 70 and have .7 and .8 contraction miscues on it. They have 4.8 and 3.8% on story 53. Indeterminate function miscues range from 0 to 1.2% on second stories.

Table 4-34 shows distribution of functions in all relevant stories. Though sixth grade stories all have 28.6 to 30.4 nouns, our groups range somewhat more broadly and higher than they do on story 53. Verbs in sixth grade stories have a modest range from 15.3 to 19.5%. But our eight groups range from 20.3 to 34.9% in their miscues with verb ER's on relevant stories. AR6 has the high figure on the story with the most verbs, but they were well within the range on story 53.

Table 4-32
GRAMMATICAL FUNCTION OF ER:
STANDARD STORIES

			Noun	Verb	Function	Indeterm-	Contrac-	
Story		Noun	Verb	Modifier	Modifier	Word	inate	tions
44		34.5	16.6	10.5	2.6	31.7	1.4	.2
NA								
HS								
AR	33	25.5	17.2	4.5	18.4	.7	.7	
TS	38.7	13.3	17.3	2.7	26.7	---	1.3	
DE	43.1	16.5	12.7	2.6	23.2	---	1.9	
AP	39.8	20.7	17.4	4.6	16.7	.7	.2	
MB	35.7	14	11.6	3.0	32.9	1.0	1.4	
HP	33.1	22.2	13	3.3	25.1	.4	2.9	
Story	51	30.8	17.6	10.2	4.6	32.7	---	2.3
NA		31.1	27.1	13.5	7.0	17.8	---	3.4
HS		34.1	24.1	13.4	5.4	19.8	---	3.0
AR		34.8	18.4	13.5	5.3	22.2	---	5.9
TS		33.8	17.9	12.8	5.4	25.6	---	4.5
DE		29.3	17.6	11.1	6.0	32.3	---	3.8
AP		30.1	23.5	15.2	7.1	19.7	---	4.3
MB		28.4	24	12.5	6.0	25.9	---	3.3
HP		30.2	19.2	15.5	4.2	25.6	---	5.3
Story	53	29.5	18.3	10.7	4.0	32.1	7.0	4.2
NA		26.4	24.2	14	5.9	19.3	6.2	4.1
HS		27.3	23.4	13.2	5.3	20.1	5.8	4.8
AR		29.4	24.1	12.9	5.1	15.6	9.3	3.7
TS		24.7	24.1	13.4	6.3	21.3	6.3	3.8
DE		22.5	21.4	13.5	6.1	25.2	7.2	4.1
AP		24.7	20.7	12	6.3	23.5	8.1	4.7
MB		23.2	27.9	14.6	6.0	17.9	6.2	4.3
HP		23.9	26.0	15.0	4.9	20.5	6.1	3.8

Table 4-33
GRAMMATICAL FUNCTION OF ER:
CULTURALLY RELEVANT STORIES

Second Grade

Story No.	Group	Noun	Verb	Noun Modifier	Verb Modifier	Function Words	Indeterminate	Contractions
26	NA	26.9	20.9	12.9	5.0	32.3	2.0	----
68	NA	32.1	22.6	8.1	.9	26.2	----	10.0
26	HS	26.4	23.9	14.7	4.3	27	3.7	----
68	HS	36.7	24.3	12.3	1.3	17	----	8.9
68	AR	38.6	23.9	13.7	1.0	14.2	----	8.6
86	TS	27.2	21.4	12.4	5.0	27.6	.3	6.2
82	DE	31.3	19.9	15.7	2.4	24.1	----	6.6
75	AP	39.7	23.1	11.5	2.5	15.6	4.6	2.9
71	MB	27.8	25	12.5	4.7	23.8	----	6.1
67	HP	34.7	19.3	15.1	2.8	19.3	4.2	4.6

Fourth Grade

83	NA	22.3	38.8	8.7	7.0	22.8	----	.5
69	HS	29.1	29.9	14.7	6.8	17.5	----	.2
87	AR	30.1	24.4	14.3	7.2	22.5	.2	1.4
85	TS	26.9	29.1	14.8	4.1	23.3	.5	1.2
49	DE	25.5	18.9	12.4	4.6	35.5	----	3.1
74	AP	27.9	24.3	13.8	1.4	30	.2	1.9
72	MB	27.9	25	12.5	4.7	23.8	----	6.1
69	HP	26.8	23.3	17.4	6.0	26.2	----	.2

Sixth Grade

81	NA	36.7	28.3	8.1	3.7	23	----	.1
70	HS	30.5	27.6	15.6	6.0	19.1	.5	.7
88	AR	27.7	34.9	13.3	7.6	15.3	----	.4
77	TS	33.1	20.3	5.9	2.7	30.0	1.2	6.7
84	DE	24.8	24	12.2	7.0	27.2	.2	4.6
76	AP	28	25.2	9.4	4.0	30.4	----	2.9
73	MB	27.9	29.3	8.7	3.1	21.1	.8	9.1
70	HP	27.8	27.7	13.4	6.6	23	.6	.8

Table 4-34

GRAMMATICAL FUNCTION
IN CULTURALLY RELEVANT STORIES

	2nd							4th							6th						
Story #'s	26	67	68	71	75	82	86	49	69	72	74	83	85	87	70	73	76	77	81	84	88
Function																					
NOUNS	30.1	34.3	28.7	29.4	34.9	30.8	31.9	29.2	30.8	32.1	33.4	31.2	31.4	30.0	29.4	29.7	29.1	30.0	31.9	28.6	30.4
VERBS	23	19.3	22.0	18.1	14.0	18.1	21.4	17.8	17.8	17.0	16.7	17.1	18.2	17.1	15.3	17.6	17.5	17.0	16.9	18.2	19.5
NOUN MOD	12	9.7	7.8	5.0	10.2	8.7	10.8	5.6	10.7	12.4	7.5	9.1	10.2	12.8	10.7	8.6	6.5	7.2	7.0	7.7	7.8
VERB MOD	5.1	3.3	1.6	1.9	2.8	1.7	3.8	4.9	3.8	2.9	3.7	4.9	4.1	4.3	4.8	4.0	3.9	3.9	3.6	5.7	4.0
FUNCTION	27.1	27.1	29.1	37.5	31.6	35.9	26.7	35.2	34.5	31.5	35.1	35.4	32.4	32.1	37.6	34.0	39.2	38.1	39.5	36.2	35.7
INDETER	2.4	2.4	0.0	1.5	2.0	0.0	0.3	0.2	0.1	0.2	0.1	1.1	0.9	0.1	0.2	0.9	0.1	0.4	0.0	0.1	0.2
CONTRACT	0.0	2.0	4.6	4.7	1.5	2.2	2.4	0.9	0.3	2.6	1.5	0.2	0.6	1.3	0.6	2.1	2.0	3.0	0.1	1.9	0.2

Both groups, HP and HS, that read story 70, which has almost 11% noun modifiers, have relatively high noun modifier miscues, 15.6% and 13.3%. AR6 produces 13.3% such miscues in a story with only 8% noun modifiers. Lower miscue rates for other groups may reflect lower incidence of noun modifiers in the stories.

Verb modifier miscues vary more among sixth graders on second stories than they do in story 53.

Range of function words in sixth grade stories is narrow, 34 to 39.5%, all higher, though, than the 32% in story 53. TS6 reading a story with 38% function words produces 30% function word miscues, compared to 21% on story 53. AP6 produces 30.4% on a story with 39.2% function words compared to 23.5% on story 53. Six sixth grade groups have more function word miscues on second stories than on story 53, but all are well below the percent that would be expected if miscues were proportionate.

All sixth grade groups show some differences in pattern on their two stories. HS6 and HP6 have similar patterns on story 70, their culturally relevant story.

Fourth grade groups all produce lower rates of noun miscues on second stories than on story 51, even though the 30.8% nouns in story 51 is near the low end of the narrow range among fourth grade stories: 29.2 to 33.4% nouns. This, perhaps, illustrates that it is not simply frequency but other factors such as type and syntactic style which influence miscues on each function.

Range of noun miscues on story 51 is narrow among fourth grade groups - 28.4 to 34.8%.

NA4 is high among fourth grade groups with 27.1% verb miscues on story 51, but their figure is 38.8% verb miscues on story 83, a story with 17% verbs. All fourth grade stories have 16.7 to 18.2% verbs. All fourth grade groups have slight to moderately higher verb miscue rates on second stories than on story 51. TS6 has 29.1% verb miscues on story 85, but only 17.9% on story 51.

Fourth grade stories vary from 5.6% to 12.8% noun markers. Yet fourth grade groups had a similar range of noun marker miscues on story 51 and their second stories. Three to five percent of words in fourth grade stories are verb modifiers.

The only group to show more than moderate difference in the two stories is AP4, which has 7.1% on story 51 (high for all groups) and 1.4% on story 74 (low for all groups).

Fourth grade stories have 31.5 to 35.4% function words. Only DE4 is at or above that figure on both stories in miscues. Five groups on story 51 are near or below 20%. Second language groups, TS4 excepted, are relatively low in function word miscues in both their readings. Indeterminates are negligible, largely because of their virtual absence from fourth grade stories.

Contraction miscues are 3.4% to 5.9% on story 51 and .5 to 6.1% on second stories. MB4 reads story 72, a story with 2.6% contractions and produces the 6.1% miscues.

Second grade stories read range from basal primers to second grade basal stories to trade books. They're more variable in style than fourth and sixth grade stories. They range, for example, from no contractions to almost 5%. NA2 has no contraction miscues on story 26, which has no contractions, and 10% on story 68, which has 4.6%. HS2 on the same stories has 0 and 8.9% contraction miscues. AR2 on story 68 has 8.6% contraction miscues.

Story 44, with only .2% contractions, generates from .2 to 2.9% contraction miscues among groups reading it.

Story 44 has 34.5% nouns. That's at the high end of the second grade story range, 28.7% to 34.9%. Most groups produce higher rates of noun miscues than proportionate on story 44. DE2 has 43.1%. NA2 and HS2 reading story 26 had 26.4 and 26.9% noun miscues, below the 30.1% in the story. But they and AR2 all had higher rates of noun miscues than are found in story 68 (28.7%). TS2 and MB2 have 27.2 and 27.8% noun miscues on second stories. Except for those and the rates on story 26, all other second grade noun rates are above 30%. Few fourth and sixth grade noun miscue percents exceed 30%.

Story 44 has 16.6% verbs. Miscues range from 13.3% for TS2 to 25.5% for AR2. Verb range in second grade stories is 14% to 23%, reflecting the varied styles and format. AP2 read story 75 with 14% verbs with 23.1% verb miscues. DE2 read story 82 with 18.1% verbs with 19.9% verb miscues. NA2, HS2, AR2 have 22.6, 24.3 and 23.9% miscues on story 68 which has 22% verbs. TS2 has 13.3% verb miscues on story 44, but 21.4% on story 86 which has exactly that percent verbs. HP2 has 19.3% verb miscues also matching verb content.

Noun modifiers vary from 5 to 12% in second grade stories. Miscues on story 44 (10.5% noun modifiers) range from 11.6 to 17.4%. With one exception noun modifier miscues on second grade more relevant stories are between 11.5 and 15.7%. The exception is 8.1% for NA2 on story 68.

Verb modifiers dip below 2% for some second grade stories. Miscues on them vary from .9 to 5%. Story 44 with 2.6% generates 2.6 to 4.6% verb modifier miscues.

Function words range from 26.7% to 37.5% in second grade stories. Groups reading second grade standard story 44 with 31.7% function words, produce from 16.7% to 32.9% function word miscues. Miscues on second stories ranged from 15.6% (AP2 on story 75, which has 31.6% function words) to 32.3% (NA2 on story 26 with 27.1%).

It appears that miscues are influenced by, but do not follow closely, frequencies of grammatical function. It also appears that grammatical function miscue patterns across groups can vary from one story to another for reasons other than simple frequency. It appears also that dialect and second language factors could be interacting at least in specific cases. Those are explored in the separate discussion of language groups.

Intonation

While virtually every miscue involves some minor shift in intonation there are some miscues that integrally involve an intonation change as a major factor in the cause or effect of the miscue.

One kind of intonation miscue relates to a group of words in English that shift stress depending on their grammatical function: desert/desert, produce/produce, record/record, convert/convert, conduct/conduct. In all of these, the noun in the pair has the stress on the first syllable and the verb stress is on the second.

In this type of intonation shift as in most others, the shift most likely reflects the grammatical shift rather than causing it. The intonation is probably assigned after all grammatical decisions are made, not before.

Another type of intonation miscue applies to the intonation contour of a phrase. Sometimes the phrase structure is reflected in the orthography in that phrases either become hyphenated words or compound words: The shift from in his darkroom to in his dark room reflects a change in meaning from a specific room for printing pictures to any room that lacks light.

By far the greatest number of miscues involving intonation reflect transformations of the entire syntax of sentences and sentence sequences. The intonation of a sentence is a contour of stress pitch and juncture that overrides the phonology of the entire sentence. In this example the reader has read a question as a statement: "Then you did lose some sheep?" To do so the reader had to start the statement contour at the beginning and carry it through. That means a prediction was made at the beginning of the sentence that it was going to be a statement.

Table 4-35

INTONATION

Group	2nd Grade				4th Grade				6th Grade			
	44 Stan	Rel	Range		51 Stan	Rel	Range		53 Stan	Rel	Range	
			Stan	Rel			Stan	Rel			Stan	Rel
NA	3.9	5.6	0.0 6.7	2.0 10.0	0.0	4.0	0.0 0.0	2.0 10.0	5.6	5.0	2.0 10.0	2.0 10.0
HS	15.3	4.9	12.2 21.7	4.0 7.3	7.1	14.1	4.1 10.2	6.0 20.0	4.0	5.0	2.0 8.0	0.0 10.0
AR	9.0	6.1	6.0 14.0	0.0 10.3	6.4	6.4	0.0 12.0	2.0 10.0	6.5	3.0	4.0 8.0	2.0 6.0
TS	10.7	23.1	0.0 25.7	12.0 44.0	8.5	7.5	6.1 9.8	4.0 16.0	5.0	12.1	2.0 10.0	0.0 30.0
DE	12.2	14.1	8.0 23.7	8.7 19.4	8.6	10.6	5.9 12.0	4.4 14.0	7.6	7.5	2.0 20.0	4.0 13.7
AP	5.5	9.5	2.0 10.0	6.0 12.0	4.5	6.4	4.0 5.9	0.0 15.7	5.9	6.1	3.9 8.0	2.1 10.0
MB	11.7	10.6	4.1 23.4	7.1 13.2	11.6	14.6	4.0 18.0	2.0 27.7	6.4	6.6	2.0 11.8	0.0 10.0
HP	6.4	8.2	0.0 10.0	4.0 20.0	7.3	16.5	3.9 14.6	12.0 24.5	6.0	11.8	3.9 10.2	2.0 27.7

In past studies, we separately coded these different types of intonation miscues, but in this study, having learned that most intonation miscues involve sentence and intersentential syntax, we have simply coded intonation "yes" if the miscue involves, is caused by, or results in an intonation shift; or "no", intonation is not involved. Table 4-35 shows the mean percent of intonation miscues and the range for each group. While some groups have higher means than others, it is also apparent that in every group, there is one or more subjects who produce few or no intonation miscues. Variations in means seem to reflect scattered individuals who produced relatively more frequent intonation miscues. There seems to be no pattern for which language groups these individuals come from. No Navajo reader in any grade produced more than 10%, no AR reader has more than 14%, no AP more than 15.7%.

One subject, TS103, a second grader, is a specialist in intonation miscues. He produces 44% in story 86 and 25.7% in story 44. That's far more than any other reader in any grade or group.

Here are his intonation miscues on S86, My Name Is Miguel:

Expected Response

Observed Response

0105 "But that is your name," said Mr. Diaz,

"But that is your name," said Mr. Diaz.

0106 surprised.

Surprise,

0107 "But it's not my name. . .

But it's not my name. . .

0211 Miguel didn't want

Miguel didn't want

0212 his father and mother to speak to him in

his father and mother to speak to him in

0213 Spanish when his friends were visiting.

Spanish. When his friends were visiting

0214 "Don't talk in Spanish," Miguel had said

don't talk in Spanish, Migne had said,

0215 one night. "Speak English. My friends don't

"one night speak English, my friends. Don't

0216 know Spanish, and they don't know what....

know Spanish, and they don't know what....

Expected Response

0316 Is it not a good thing

0317 to learn, my son?"

0403 But our

0404 teacher does not think we are too old to go

0405 to school. She is glad that we all want to

0406 learn. That is why she comes to night school

0407 to help us."

0408 "But she has to teach you," Miguel said,

0409 still cross. "She is a teacher."

0503 He was glad

0504 to go.

Observed Response

Is it not a good thing?

to learn, my son?"

But our

teacher does not think we are too old to go.

to school. She is glad that we all want to

learn that is why she comes to night school.

To help us."

"But she has to teach you," Miglel said.

"Still across she is a teacher."

He was glad.

To go.

Expected Response

Observed Response

0601	Sometimes, Miguel had homework to do	Sometimes, Migay had homework to do.
0602	when he came home from school. Once in a	When he came home from school once in a
0603	while, his friend George came home with...	while, his friend George came home with...
0608	How different	Oh, different
0609	George's house looked inside!	George's house looked inside!
0701	Miguel and George came in. He was sitting...	Miguel and George came in the-in. He was sitting...
0704	My friend and I have homework to do,	My friends and I have homework, too, do,
0802	Here. Now there	Here, now. There
0803	is room for all.	is room for all.

This subject illustrates, through his miscues, how intonation miscues work. One factor common among young readers is a tendency to end a sentence where a line ends if the pattern could be completed there. That shows on lines 105, 316, 404, 406, 408, 503, 601. There are also four examples in TS 103's reading of story 44. But that story has shorter sentences and simpler syntax.

This phenomenon of ending sentences at line ends relates to a broader strategy of terminating where clauses could have concluded, even if parts are left over. See lines 213 and 215.

TS 103 also demonstrates restructuring that frequently involves a chain of intonation-related syntactic changes. From lines 211 to 216 there are a chain of such shifts. Sometimes it all comes together as in 404-407. But in other cases TS 103 can't quite come up with syntactically and semantically acceptable structures. Often clauses shift dependency as a result of intonation shifts. That's true of the when clauses in 213 and 602. Here's another example from later in the story:

Expected Response

1106 All the lights were on when Mr. Diaz and

1107 Miguel came into the school building. Many

1201 people were walking in and out...

Observed Response

All the lights were on. When Mr. Diaz and

Migel came into the school building, many

people were walking in and out...

In this example the subject has shifted a when clause and changed dependency to the next main clause, even though that clause carries over to the next page.

A number of the intonation miscues also involve dialogue. A sixth grader (HP 826) with almost 28% intonation miscues produced these dialogue-related intonation miscues:

0415 He called Afa, and the boy and his dog ran... He called "Afa",and the boy and his dog ran...

0810 "Hurry!" Mako scolded. "Hurry, Mako", scalded...

1015 He bent over to seize Afa and drag him aboard. He bent over and says "Afa" and drag him aboard.

These examples of intonation miscues reveal the readers' search for the underlying grammatical structure of the language they are seeking to comprehend. If certain subjects show unusually high percentages of such miscues it may be that they are developing strategies for predicting the deep structures, taking risks that do not always produce the expected patterns. The subjects may also be reacting to the author's unfamiliar styles. Whatever is involved, it is intrinsic to the reading process and not a sign of any abnormality in the reading of these subjects.

Bound Morphemes

With the stress in instruction placed on bound morphemes in reading, English and spelling instructional materials, it might be expected that readers such as those in our study would show evidence of problems in this area. We can conclude, however, that these average readers have little bound morphemic involvement in their miscues other than dialect related miscues. If a substitution, omission, insertion or reversal miscue involves the exact inflected form in the ER and the OR, no bound morphemic involvement was coded. Reduction of consonant clusters of past tense, plural, third person singular or possessive attributed to regional dialect or influence of native language features were not considered in this category. Bound morphemic involvement includes substitution, insertion, omission or reversal of: 1) inflectional suffixes, such as walked/wanting; small/smallest; growl/growing; coyote's walk/coyote walks; 2) non-inflectional forms such as men for woman or come for came; 3) contractional suffixes such as you've/its; I/I'll; 4) derivational suffixes such as hopefully/hopelessly; Tom/Tommy; hunger/hungry; herder/herd; 5) prefixes such as external/internal; usual/unusual; 6) miscue across affix types such as television/televised; smaller work/small worker; and 7) miscue involves the base suggesting a confusion over what constitutes the root word such as women/womens and \$drownded/drowned.

For all groups and stories, there is a small percentage of bound morphemic involvement in the miscues. For second graders on story 44, the average percent of all miscues which involve some bound morphemic feature is 14.7%. For fourth graders on story 51, 17.3% of the miscues involve bound morphemes and for sixth graders on story 55, the involvement is 23.5%. This increase across grades may be due to an increased use of words with bound morphemes in the text. In most cases when bound morphemes are involved, the miscue stays within the same type of bound morpheme. That is, inflectional suffixes are substituted for inflectional suffixes; non-inflected for non-inflected; prefixes for prefixes, etc. Miscues across types are low for all groups on all stories.

Table 4-36

BOUND MORPHEME INVOLVEMENT

Grade	No Involvement	Inflectional Suffix	Non-Inflected Form	Contractional Suffix	Derivational Suffix	Prefix	Across Types	Involves Base
Second	85.3	10.8	1.3	1.1	.3	.3	.8	----
Fourth	82.7	10.3	1.1	2.2	1.3	.6	1.5	.3
Sixth	76.5	12.8	1.7	3.2	2.0	.9	2.7	.1

Part 6 - Other Semantic Aspects

As with syntactic acceptability, miscues may be semantically fully acceptable (3-6), partially acceptable (1-2), or unacceptable (0) (see Tables 4-37, 4-38, 4-39).

Some second grade groups have higher than average percents of semantically unacceptable miscues (0): HS2 - 39% on both stories; AR2 - 37.5% and MB2 35% on the standard story; AP2 - 45.5% on their culturally relevant story; MB2 - 35% on the standard.

In the fourth grade, dialect groups as a whole, show much lower percent of semantically unacceptable miscues than second language groups. On both stories mean for dialect groups is 27%, while it is 42% for second language groups. HP4 among dialect groups, breaks this pattern with 39 and 37% unacceptable miscues.

A similar pattern shows for sixth grade, though the difference between the means for dialect groups, 25.5%, and second language groups, 37%, is more moderate. The TS6 group is the exception, actually dropping to 16.4% on their second story.

Partially acceptable miscues, those that fit semantically with what comes before or after (1 plus 2), range for second grade groups between 20 and 30%, except for TS2 (41.2%) and AP2 (15.6%) and HP2 (16.8%) all on their culturally relevant stories. The TS2 percent goes with their low 22% of unacceptable miscues. AP2 goes with a very high unacceptable, 45%.

Among fourth grade groups, partially acceptable percents are also between 20 and 30, except DE4 (38.6%) on the standard story and AP4 (33.4%) and MB4 (15.4%) on their relevant stories. The last goes with high percent acceptable (65% totally) and low unacceptable. In general, the sharp contrast between dialect and second language groups on semantically unacceptable miscues is not reflected in differences on partially acceptable miscues.

Partial semantic acceptability for sixth grade groups is in the same general range. TS6 has 32.4% on the standard story; NA6 has 16.5% and AR6 has 14.6% on their relevant stories to go with high percent unacceptable. But DE4 has 18.2% with a low percent unacceptable and high percent acceptable (66% totally). Again no contrast between dialect and second language groups shows.

Miscues may be semantically acceptable in the sentence (3) or passage completely (4) or except for other miscues (5 or 6). For most groups, the largest number of acceptable miscues are fully acceptable (4). But there is a considerable variation in this category. DE2 has 35.1% on its standard story, while AP2 has 9% on its relevant story. Fourth grade groups range from 5.5% (NA4 standard) to 41.8% (MB4 relevant) fully acceptable. Sixth grade groups range from 7% (AR6 rele-

vant) to 40.8% (DE6 relevant). Fourth and sixth grade dialect groups are higher than second language groups on fully acceptable with the exception of TS6 on their relevant story and HP4 on both stories. TS4 on the standard story is also out of the pattern.

For most second grade groups, the ratio between those coded 3 and 4, semantically acceptable, and those coded 5 and 6, acceptable except for other miscues, is from 2 to 1 to 4 to 1. The range for these groups for those coded 5 and 6 is narrow, from 9 to 15%. But two groups, AP2 and MB2, with quite low fully acceptable (4), have about 25% coded 5 and 6. For AP2, that exceeds the 14% coded 3 and 4.

Ratio for fourth grade dialect groups is also from 2:1 to 4:1; an exception is HP4 on their relevant story where those coded 5 and 6 exceed those coded 3 and 4.

Fourth grade second language groups with low percent of 3 and 4 coding show another pattern. NA4 has higher percents coded 5 and 6 on both stories. HS4 and AR4 showed that pattern on their relevant stories. And except for TS4, all groups showed small differences.

AR6 shows equal percents on the standard story and higher percents on their relevant story of miscues coded 5 and 6. All other groups show a plurality for miscues coded 3 and 4, though ratios are smaller for second language groups except TS6 on their relevant story.

The relatively high proportions of miscues coded 5 and 6, among acceptable miscues, shows a compounding effect of miscues on comprehensibility. To some extent, disruptive miscues beget disruptive miscues and where meaning is disrupted miscues are more likely to occur. Without a clear sense of where syntax and meaning are going, miscues are more likely.

Similarly, the proportion of miscues coded 4 and 6, acceptable in passage, compared to 3 and 5, acceptable in sentence only, suggests some effects on comprehending.

Only one group (MB2 on their relevant story) shows more sentence acceptable (3 plus 5 combined) than passage acceptable miscues (4 plus 6 combined). All other second grade groups show a narrow range of 11 to 16% sentence acceptable miscues (except AP2 which had 20%) on the standard story, as opposed to a range of 22% to 44% passage acceptable miscues.

Fourth grade groups range from 7.3 to 16% on sentence acceptable miscues with dialect groups averaging 13% and second language groups about 10%. That's proportionate to the somewhat lower overall percents of acceptable miscues that second language groups show compared to dialect groups.

Table 4-37

SEMANTIC ACCEPTABILITY: SECOND GRADE GROUP

Degree of Accept- ability	Standard								Relevant							
	NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
0	22.9	39.2	37.5	24.3	21.8	27.7	35.0	29.3	29.8	39.3	28.7	22.1	22.4	45.5	29.8	30.7
1	20.7	19.6	19.5	25.4	17.6	21.8	20.0	16.5	19.1	20.8	27.4	36.2	20.6	13.6	14.1	11.4
2	3.4	4.4	3.0	2.4	3.2	4.0	8.5	6.4	5.6	5.5	3.0	5.0	4.7	2.0	4.5	5.4
3	10.1	10.1	7.5	10.1	8.3	13.9	10.5	9.0	9.0	6.6	11.0	10.1	12.4	5.0	14.6	11.9
4	31.8	15.8	17.0	29.0	35.1	16.8	13.5	26.1	27.5	13.7	20.1	16.6	25.9	9.0	12.6	31.7
5	2.2	1.9	4.5	1.8	4.8	5.9	4.0	5.3	1.7	6.0	3.7	4.5	3.5	6.0	12.6	3.5
6	8.9	8.9	11.0	7.1	9.0	9.9	8.5	7.4	7.3	8.2	6.1	5.5	10.6	19.0	11.6	5.4
3+5	12.3	12.0	12.0	11.9	13.0	20.0	14.0	14.0	11.0	13.0	15.0	16.0	16.0	11.0	27.0	15.0
4+6	42.0	25.0	28.0	35.0	44.0	27.0	22.0	33.0	35.0	22.0	26.0	22.0	36.0	28.0	25.0	38.0

Table 4-38

SEMANTIC ACCEPTABILITY: FOURTH GRADE GROUP

Degree of Accept- ability	Standard								Relevant							
	NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
0	45.7	48.2	40.9	33.2	17.1	31.8	24.0	39.2	34.2	50.0	43.8	41.8	27.3	21.4	19.4	36.8
1	15.6	18.8	20.7	27.6	32.1	20.7	19.0	16.1	26.6	15.2	19.7	20.9	26.8	24.9	13.9	19.4
2	4.0	3.6	3.0	4.5	6.5	2.5	2.5	3.0	3.5	6.1	4.9	5.0	3.0	8.5	1.5	7.5
3	6.0	5.6	8.4	5.5	8.5	10.6	10.5	10.1	5.5	7.1	3.9	7.5	8.6	10.9	9.5	4.5
4	5.5	11.7	11.8	23.1	28.1	21.2	34.0	16.1	9.5	7.1	10.8	12.9	18.7	18.4	41.8	11.9
5	7.5	2.0	4.9	2.0	1.0	4.0	2.0	5.5	4.5	2.0	3.4	4.0	2.5	3.0	3.0	5.5
6	15.6	10.2	10.3	4.0	6.0	9.1	8.0	10.1	16.1	12.6	13.3	8.0	13.1	12.9	10.9	14.4
3+5	13.5	7.6	13.0	7.5	9.5	15.0	12.0	16.0	10.0	9.0	7.3	12.0	11.0	14.0	13.0	11.0
4+6	21.0	22.0	21.0	27.0	34.0	30.0	44.0	26.0	26.0	20.0	25.0	21.0	32.0	30.0	52.0	26.0

Table 4-39

SEMANTIC ACCEPTABILITY: SIXTH GRADE GROUP

Degree of Accept- ability	Standard								Relevant							
	NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
0	44.4	33.3	45.0	30.8	22.0	28.2	24.6	26.1	45.0	29.0	51.8	16.4	15.9	23.5	35.0	30.3
1	15.7	18.4	13.0	26.4	18.5	16.8	21.7	19.1	16.0	21.0	13.1	20.4	14.4	16.3	19.0	21.7
2	3.5	7.0	6.5	6.0	5.5	5.4	2.5	3.5	.5	5.5	1.5	4.5	3.5	6.1	6.0	4.0
3	1.5	6.0	5.0	6.0	7.0	12.9	12.3	12.6	5.5	9.0	4.0	9.5	8.0	5.1	5.5	4.5
4	20.2	18.9	13.0	14.4	29.5	22.8	27.6	25.1	17.0	18.0	7.0	40.3	40.8	27.0	19.0	22.0
5	2.5	4.0	2.5	4.5	5.5	1.5	5.4	4.5	4.0	7.0	3.5	1.5	1.5	1.5	2.0	5.6
6	12.1	12.4	15.0	11.9	12.0	12.4	15.9	9.0	12.0	10.5	19.1	7.5	15.9	20.4	13.5	11.6
3+5	4.0	10.0	7.5	10.5	12.5	14.4	17.7	17.1	9.5	16.0	8.5	11.0	9.5	7.0	7.5	10.1
4+6	32.3	31.3	28.0	26.3	41.5	35.2	43.5	34.1	29.0	28.5	26.1	47.8	56.7	47.4	32.5	33.8

Sixth grade groups ranged from 4% to 18%, sentence acceptable miscues (coded 3 and 5). Mean for second language is 10% and, for dialect, 12%; again that reflects differences in overall semantic acceptability of the miscues of the two types of readers.

Individuals with high proportions of miscues acceptable semantically in the sentence only, may be losing the threads of the story's meaning and settling for coping with the passage sentence by sentence. Such miscues are, in one sense, another type of partially acceptable miscues. Like the latter, they are more likely to be corrected than fully acceptable or unacceptable miscues.

Semantic Word Relationship

For all real word substitutions, we code the semantic relationship between ER and OR. The sub-categories here are mutually exclusive but not truly hierarchical though they are arranged from unrelated to synonymous in the text. Tables 4-40, 4-41, and 4-42 present the data for this category.

Complex miscues without word level substitutions, insertions, omissions, reversals, and many intonation miscues are not coded in this category. Nonword substitutions also are not coded.

All three cues systems -- graphophonic, syntactic, and semantic -- operate even at the word level. These systems often interact so an example like this (S53) is not surprising:

Line 1013 Andrew's eyes ^{drooped}dropped, then closed. (AR6 reader)

These words in this context are synonymous. They are also verbs which look and sound a lot alike.

Here are other examples:

^{waggled}
He wagged a finger (MB6). (S53, line 0824)

^{switching}
tail twitching(AP6). (S76, line 0616)

Miscues may be coded as unrelated (0), but the lack of semantic relationship between words doesn't mean semantic cues were not used by the reader. Here's an example from a Samoan sixth grader who left Samoa for Hawaii in the fifth grade (S70):

Line 0626 Clouds of sea birds whirled

Line 0627 from their nests into the air with ^{hungry eyes}angry cries.

Hungry and angry, eyes and cries have no semantic relationships. Yet the words create a highly appropriate metaphor worthy of J. L. Seagull himself.

Sometimes prior text sets up an expectation. In a story where the main character does a lot of studying prior to the following text sentence, the miscue indicated is produced by many readers:

learned
I leaned on the baby's bed. (S53, line 0213)

No word relationship exists between learned and leaned, although there is use of semantic expectation.

Story 53, My Brother Is a Genius, starts: "If it bothers you..." We often get brothers/bothers. The title is read by the readers prior to beginning the story. And we also often get in that paragraph:

brother
He helped my mother with her coat. (lines 0105, 0106)

Both are often corrected.

Some semantically unrelated miscues are clearly the result of graphophonic cues:

surface
I will fly to your service. (AR6) (S88, line 0604)

to
to gather speed (HS6) (S70, lines 1004, 1005)

to learn a certain (HS6) S53, line 0222

Others show both graphophonic and syntactic influence:

I invited Amos (AR6) (S73, line 0102)

What an appetite Tupa seemed to have (HS6) (S70, line 0214)

to take hold of (MB6) (S53, line 0216)

Some are habitual word associations:

and
Andrew said (MB6) (S53, line 0724)

Some are partially the result of peripheral cues:

You just happen to do your studying. . . (S53, lines 0103,
0104)

Others are entirely the result of syntactic cues:

study word meanings (S53, line 0203)

(1) Some words have a semantic relationship that derives primarily from their having the same grammatical function; usually these are function words:

Someone stuck ^asome papers (HS6) (S53, line 1101)

to the
on your station (MB6) (S53, lines
0504, 0505)

(2) Sometimes the substitution is a variant or derived form of the same base word.

A real valuable gold mine (AP6) (S53, line 0308)

I'm afraid of poisonous snakes (MB6) (S73, line 1112)

a number of ^{definite} definitions (HS6) (S53, line 0222)

on a nature hike (S73, line 0511)

(3) Sometimes the semantic relation is between the OR and a word preceding or following the ER:

between nine and ^{o'clock}ten on Thursdays (HS6) (S53, line 0403)

better that way (AR6) (S53, line 0215)

(4) Sometimes the association is to a homophone or homograph of the ER:

Shouted for joy (HS6) (S70, line 1110)

The association may be to the proper name Joy, which is spelled and sounds the same, as the common noun joy.

(5) Sometimes ER and OR have one or more semantic features in common:

a ^{giant} genius (HS6) (S53 line 0722)	Mako lay ^{straight} stretched at full length (HS6) (S70, line 0121)
the boy ^{scared} shoved the canoe (HS6) (S70, line 0508)	the coral ^{field} reef (HS6) (S70 line 0604)
The white shark had ^{pushed} paused (HS6) (S70 line 1004)	^{stumbled} slumped into a chair (AP6) (S53, line 0912)
wild: not ^{timid} tamed (AP6) (S53 line 0218)	my ^{brother} boy (AP6) (S53 line 0518)

(6) Other semantic relations are between words with a categorical relationship. They are parallel members of the same semantic set:

Caleb and Harv ^{connected} collected some flat pieces (MB6) (S73 lines 0501, 0502)		
my mother (HS6) (S53 line 0105)	in a few ^{seconds} seconds (HS6) (S53 line 0708)	to his ^{sides} sides (AP6) (S53 line 0902)
on floodlights (AP6) (S53 line 0815)	on ^{Thursdays} Thursdays (HS6) (S53 line 0403)	
in the ^{barnlot} barnlot (AP6) (S76 line 0401)	for ^{sixty years} sixty year (AP6) (S76 line 0318)	^{gaze} glance at (AP6) (S76 line 0610)

(7) Some semantic relationships are between the generic and specific terms:

in the islands of the tropics (HS6) (S70, lines 0804, 0805)

in our school (HS6) (S53 line 0227)

(8) Antonyms are always text determined as are all semantic relations:

There isn't anything you can't say (AP6) (S53 lines 0224, 0225)

declared Fareedah ^{impatiently} impatiently (AR6) (S88 line 0308)

my sight wasn't off that cat (AP6) (S76 line 0609)

- (9) Sometimes two words form a pair like boy and girl:

yes, Miss (HS6) (S53 line 0312)

- (10) Sometimes words differ (in context) only in connotation:

everybody like(s) babie(s) (MB6) in the daylight (AP6)
(S53 lines 0324, 0325) (S76 line 0512)

implanted in my brain (AP6) "Philosophical?" I asked
(S53 line 0306) (S53 line 0718)

I pawed for the surface (AP6) (S76 line 0805)

- (11) Other words are contextual synonyms:

"Mother! Dad!" I yelled. (AP6) wagged a finger (MB6)
(S53 line 0721) (S53 line 0606)

How old is he (the baby) (HS6) snuffing for a turtle (AP6)
(S53 line 0510) (S76 line 0622)

a blare of music (AP6) somebody (AP6)
(S53 line 1106) (S76 line 0723)

In the second grade groups, HS2 had over 70% unrelated substitutions on both stories, quite a bit more than any other group at any other grade (Table 4-40, 41, 42). Second grade groups tended to have similar patterns of semantic word relationship on both stories.

Seven groups produced small percents of antonyms (coded 8) on their culturally relevant stories, but none on the standard story. That includes a high of 4.8% for NA2. One subject (NA2-505) produced these miscues on S68.

Henry didn't care (line 0102)

Do you see any animal you do want (line 0503)

And I don't know who has (line 0707) I don't want (line 0806)

Do dragons eat bugs? (line 0905)

Do you think (line 1006)

In Story 26, the subject's standard story, the only similar patterns use did not instead of the contraction, which she doesn't miscue on. She's clearly showing some confusion over do/did plus n't to indicate negatives. This may happen only in reading because of the common way we have in English of using a meaningless do/did as a carrier for the contracted not. But it may also happen in her use of aural English. (See Chapter VI for a more complete discussion.)

All of the AR2 antonyms also involved do/don't substitutions on S68.

NA2 shows relatively high percent of words with primarily syntactic relationship (coded 1) on the standard story. They are also relatively high in both stories in substitutions of variant forms of the same base word (coded 2). DE2 is also high in this type of miscue in both stories.

Second grade substitutions with some common semantic features (coded 5) between ER and OR range from 0 to 7.1%. AR2, TS2, MB2 show quite different percent of such miscues on the two stories.

From 0 to 3.2% of word for word substitutions are the alternate in a pair (coded 9) for second graders.

Substitutions with connotation differences (coded 10) vary from 9 to 6.4%. The latter is HP2 on their relevant story. Groups tend to have more variable percents in their two stories in this category. HP2 has a lot of similar name substitutions on S67, such as Anthony for Antone. Those are coded as slight connotation changes (10).

HP2 is high on both stories in synonym substitutions (coded 11): 7.3% on the standard story and 3.9% on the relevant one.

Most second grade groups have moderate amounts of miscues with categorical relationships (coded 6) with the mean about 6%. AR2 goes to almost 12% on their relevant story.

AR2-608 produced these examples from S68:

family left	dinosaur
his friends let him play	It's a dragon.
(UC) (lines 0102, 0103)	(line 0703)
Harry jump	dinosaur
Henry grabbed the dragon	then he ran to the house
(line 1406)	(line 1408)

This subject's examples reflect prediction using all cue systems to some extent showing at least developing control of English. Note how that affects this sentence:

Harry	dinosaur home	them
Henry took the dragon house with him.	(line 1003)	

Table 4-40

SEMANTIC WORD RELATIONSHIPS:
SECOND GRADE GROUP

Standard Story									Relevant Story							
	NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
0	55.1	71.4	64.8	57.9	56.8	54.4	61.2	56.4	57.3	71.9	58.0	60.7	55.8	65.4	63.5	54.7
1	13.2	6.7	5.6	10.5	9.6	5.7	8.5	9.1	8.0	4.7	5.0	5.7	8.8	5.4	10.3	5.5
2	19.1	10.5	5.6	5.3	16.8	12.7	6.1	9.1	18.4	12.5	9.2	13.1	17.7	3.8	8.3	6.3
3	--	--	.7	--	--	.6	4.2	--	--	--	--	--	--	--	.6	--
4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5	1.5	--	6.3	6.1	2.4	5.7	2.4	4.5	1.6	.8	1.7	.8	2.7	6.2	7.1	4.7
6	5.9	1.0	6.3	8.8	1.6	7.6	4.8	4.5	6	1.6	11.8	9.0	5.3	2.3	6.4	7.0
7	--	--	--	--	--	--	--	.9	--	.8	--	--	.9	.8	--	--
8	--	--	--	--	--	--	--	--	4.8	.8	2.5	--	.9	1.5	.6	.8
9	.7	2.9	1.4	1.8	3.2	3.2	3.0	1.8	.8	3.1	--	2.5	.9	2.3	.6	.8
10	2.2	6.7	8.5	7.9	8.0	7.6	6.1	6.4	6.4	3.9	10.1	7.4	4.4	9.2	--	16.4
11	2.2	1.0	.7	1.8	1.6	2.5	3.0	7.3	3.2	--	1.7	.8	2.7	3.1	2.6	3.9

Table 4-41

SEMANTIC WORD RELATIONSHIPS:
FOURTH GRADE GROUP

Standard Story

Relevant Story

	NA	HS	AR	TS	DE	AP	MB	HP		NA	HS	AR	TS	DE	AP	MB	HP
0	65.4	48.5	56.8	50.8	47.7	38.0	40.6	53.0		63.2	60.4	60.5	56.7	45.1	52.0	41.1	60.7
1	4.4	11.9	5.1	7.1	15.6	6.2	17.3	11.0		5.8	3.8	7.3	11.0	13.4	12.2	16.9	7.4
2	12.5	10.9	10.2	19.8	23.4	29.5	20.3	19.0		18.1	17.9	9.7	11.0	25.4	14.2	8.9	11.5
3	--	--	.8	--	--	.8	--	--		--	--	.8	--	2.1	.7	6.5	--
4	--	--	--	.8	--	--	.8	--		--	--	--	--	--	--	--	--
5	--	2.0	1.7	2.4	.8	5.4	2.3	--		1.3	7.5	4.0	1.6	1.4	6.1	--	2.5
6	2.2	5.9	5.9	4.0	3.1	4.7	2.3	4.0		1.9	.9	3.2	7.1	.7	4.7	2.4	4.1
7	--	--	--	.8	.8	--	--	--		--	2.8	.8	--	--	--	--	.8
8	.7	1.0	.8	1.6	.8	1.6	.8	1.0		2.6	.9	1.6	1.6	.7	.7	3.2	--
9	1.5	2.0	4.2	.8	--	1.6	3.9	4.0		.6	--	.8	--	.7	--	7.3	2.5
10	12.5	17.8	11.9	10.3	7.0	10.9	11.3	7.0		3.2	5.7	8.9	8.7	6.3	7.4	9.7	9.0
11	.7	--	2.5	1.6	.8	1.6	1.5	1.0		3.2	--	2.4	2.4	4.2	2.0	4.0	1.6

Table 4-42

SEMANTIC WORD RELATIONSHIPS:
SIXTH GRADE GROUP

Standard Story									Relevant Story							
	NA	HS	AR	TS	DE	AP	MB	HP	NA	HS	AR	TS	DE	AP	MB	HP
0	57.5	55.6	65.1	55.2	53.9	60.4	47.7	42.6	61.9	57.7	68.0	49.4	41.0	50.3	44.8	46.6
1	10.8	7.4	8.7	7.6	11.2	11.5	15.4	16.3	12.7	10.3	10.7	12.5	19.2	14.5	8.2	15.3
2	15.0	23.0	16.7	23.4	22.4	22.1	19.2	21.3	11.9	20.5	4.1	15.6	20.5	16.6	16.4	19.8
3	--	--	--	--	--	--	1.5	.7	--	--	--	--	--	--	3.7	--
4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5	1.7	1.5	.8	3.4	2.6	2.3	1.5	2.8	5.1	1.3	2.5	1.3	3.8	1.4	3.0	3.1
6	7.5	7.4	1.6	5.5	2.0	4.6	6.9	7.8	4.2	3.2	--	3.8	2.6	7.6	4.5	3.8
7	--	.7	--	--	--	.8	--	.7	--	--	.8	--	1.3	.7	--	--
8	1.7	2.2	.8	--	2.0	3.1	.8	2.8	--	.6	--	--	.6	.7	--	1.5
9	--	.7	2.4	--	--	.8	--	.7	--	1.3	--	.6	1.3	1.4	.7	--
10	5.8	1.5	4.0	3.4	4.6	2.3	4.6	3.5	3.4	4.5	12.3	15.6	6.4	5.5	15.7	9.9
11	--	--	--	1.4	1.3	2.3	2.3	.7	.8	.6	1.6	1.3	3.2	1.4	3.0	--

Generally, fourth grade groups have lower rates of unrelated substitutions (coded 0) than their second grade counterparts. Exceptions are NA4 on both stories and HP4 on their relevant story. AR4 has an equivalent percent on the relevant story.

Fourth grade dialect groups show higher percents of miscues with primarily syntactic relationship (coded 1) than second language. HS4 is an exception on the standard story, as is AP4. On the relevant stories, TS4 and HP4 don't conform.

Substitution of variant or related words (coded 2) is very high for dialect groups and TS4 on the standard story. Relevant stories are lower for all but DE4.

One subject, AP418, has 41% of her substitution miscues in this category on S51:

Freddie/Freddie's

chemistry/chemicals

discover/discovered

Charlie/Charles

(C)

fainting/faint

replied/reply

(UC)

look up
looked up

battery/batteries

sometime/sometimes

In S74 she produces:

(C)

rise/raised

Fun/Funny

near/nearly

to reach/he reached

was/were

swallows/swallowed

crooked (one syl)/crooked

MB4 has 6.5% sequential relation (coded 3) on S72. This results from several sequential patterns built in the story. Most characters other than Willie are referred to as Mr. or Mrs. So in line 403 MB4-315 does this:

"I'll stop by the ^{Mr.}Johnson's place".

MB4-320 produces:

"I'll stop by the Johnson's place."
^{Mrs.}

and two lines later:

"At the Johnson's mailbox."
^{Mr.}

In line 603, MB4-315 and MB4-318 miscue on an unusual construction:

"but I've ^{got} not a single little duck."

And in line 503, MB4-318 produces this miscue:

"Howdy, Willie," he said
^{Doody}

These examples of a minor phenomenon are powerful indicators of how expectation and prediction operate in reading.

The use of Mr. and Mrs. in S72 also figures into MB4 having 7.3% miscues that involve substitution of the alternate in a semantic pair, (coded 9) in this case Mr. for Mrs. and vice-versa. This substitution is not uncommon even among more proficient readers. It's frequent in this story mainly because of the opportunities the story offers.

Among sixth grade groups, dialect groups show less substitution of semantically unrelated words (coded 0) than second language groups (exception is TS4 on its relevant story). AR6 is high for all groups on substitution of unrelated words 65.1% on S53 and 68% on the relevant story.

Dialect groups have substantially higher substitutions of words with primarily syntactic relationship (coded 1) than second language groups particularly on the standard story, S53.

We seem to see a pattern, at least in fourth and sixth grades, of second language groups using semantic cues less from words than from whole sequences.

Part 7 - Use of Graphophonics Cues

Reading begins with the readers responding to print. The observed response (OR) has a graphic similarity or lack of it to the expected response (ER). Likewise, the ER and OR may be compared phonemically. We apply such an analysis only to word-for-word substitutions, eliminating complex miscues, insertions, omissions, and miscues involving punctuation only.

Though we have eliminated from analysis as miscues any ER which differs from the OR only in phonological ways predictable from the reader's oral dialect, it might be expected that our various language groups' miscues would reflect different strategies in coping with graphophonic relationships.

We rate graphic and phonemic proximity on a scale from 0-9, from "no relationship" to "homophone or homograph". For each subject, we get graphic and phonemic means. The range of group means is not great, 4.8 to 6.4 for graphic (all groups and grades), 4.2 to 6.0 for phonemic (See Table 4-43).

Still some patterns do show. Total means for each successive grade are successively somewhat higher: mean for all second grade graphic is 5.15, phonemic 4.65, for all fourth grade these are 5.47 and 5.10; for sixth grade they are 5.55 and 5.20. Differences between fourth and sixth grade are clearly small.

The means for all dialect groups and all second language groups follow similar patterns. (See Table 4-43)

Means for dialect groups show the progression, while fourth grade second language groups are slightly above sixth grade. At all grades, second language means are a bit above dialect means except sixth grade phonemic means which are essentially equal.

In general, groups show similar graphic and phonemic means for both stories they read. There are some exceptions, however. Among second graders, three groups show notable differences between the two stories in phonemic means: HS2, DE2, and AP2. AP2 also shows high difference between graphic means. Two fourth grade groups show notable graphic mean differences, TS4 and HP4. HP4 shows a similar difference in phonemic means. Two sixth grade groups, HS6 and TS6, show appreciable graphic mean differences. NA6 shows such a phonemic mean difference.

But there seems to be no predictable effect on graphic and phonemic proximity from differences between stories. Groups and individuals can show differences, even sharp ones, but such differences are uncommon and appear unpatterned. Stories that appear by other variables to be discernibly different in difficulty do not show a patterned effect on these variables.

Table 4-43

GRAPHIC AND PHONEMIC MEANS

		2nd Grade			4th Grade			6th Grade		
		G	diff	P	G	diff	P	G	diff	P
NA	S	4.9	.6	4.3	5.2	.6	4.6	5.3	.6	4.7
	CR	4.8	.3	4.5	5.5	.6	4.9	5.5	.3	5.2
HS	S	5.1	.9	4.2	6.2	.5	5.7	5.3	.3	5.0
	CR	5.5	.5	5.0	6.1	.1	6.0	5.9	.8	5.1
AR	S	5.5	.8	4.7	5.9	.3	5.6	6.4	.5	5.9
	CR	5.5	.4	5.1	5.7	.4	5.3	6.1	.6	5.5
TS	S	5.8	.8	5.0	5.6	.4	5.2	5.6	.4	5.1
	CR	5.4	.6	4.8	6.0	.8	5.2	5.1	.3	4.8
Mean		5.3	.6	4.7	5.8	.5	5.3	5.7	.5	5.2
DE	S	5.7	.5	5.3	4.7	.2	4.5	5.4	.2	5.2
	CR	4.8	.2	4.6	5.0	.3	4.7	5.5	.0	5.5
AP	S	5.3	.2	5.1	5.7	.3	5.4	5.6	.6	5.0
	CR	5.1	.9	4.2	5.6	.5	5.1	5.4	.1	5.3
MB	S	4.8	.6	4.2	4.9	.3	4.6	5.3	.2	5.1
	CR	4.5	.3	4.2	5.1	.3	4.8	5.1	0	5.1
HP	S	4.9	.2	4.7	5.0	.2	4.8	5.7	.5	5.2
	CR	5.1	.3	4.8	5.5	.1	5.4	5.6	.3	5.3
Mean		5.0	.4	4.6	5.2	.3	4.9	5.5	.3	5.2
Overall Mean		5.2		4.65	5.5		5.2	5.6		5.2

Graphic and phonemic means show significant relatively high correlations with each other, .83 for all second grade, .82 for all fourth grade, .72 for all sixth grade. Low (.23) to moderate (.49) negative correlation with MPHWS show in second and fourth grade. Low significant negative correlations show between graphic mean and comprehending score at all grades.

Nothing that these figures reveal show any graphophonic problems peculiar to any group. If anything, we see a slightly greater tendency for second language readers to come closer graphically and phonemically when they miscue.

Non-Words

Readers' strategies may include sounding words out often through repeated attempts at an "unknown" word. Alternately readers may avoid taking risks and deliberately omit words they think they don't know. We've included discussion of this phenomenon here because of the already observed tendency for non-words to show high graphic and/or phonemic proximity. Table 4-44 shows figures for these phenomena.

It is important to note that most substitutions are real words and that such substitutions far out-number both omissions and non-word substitutions for all groups in all grades.

Among all second graders, omissions out-number non-word substitutions by almost 2 to 1. Two groups stand out as exceptions, the AR2 and MB2 groups, which actually produce more non-words than omissions. In the case of the AR2 group, their non-word percents are high for both stories indicating heavy use of sounding strategies or instruction in avoidance of omissions. MB2 readers are low on both non-words and omissions; since they are not low in miscues, this too may represent response to specific instructional techniques.

Among fourth graders, non-words outnumber omissions in second language readers by better than 3 to 1 and by 2 to 1 among dialect readers. Even NA readers, who had the lowest non-word production in second grade, produce more non-words than omissions in fourth grade.

Two groups run counter to this trend. The MB4 now produces more omissions than non-words; in fact, they are highest in omission and among the lowest in non-words among fourth graders. HP4 readers produce about equal percents of both. This is curious, considering that HS subjects from the same schools produce few omissions and high percents of non-words.

In sixth grade groups, non-words are half again more frequent than omissions. AP readers are about equal on both stories as are HS and MB readers on the standard story. DE sixth graders are about equal in

Table 4-44

OMISSIONS AND NON-WORDS

Groups	2nd Grade				4th Grade				6th Grade			
	Standard OM	N-W	Relevant OM	N-W	Standard OM	N-W	Relevant OM	N-W	Standard OM	N-W	Relevant OM	N-W
NA	15.8	1.1	10.8	5.4	12.7	19.1	5.9	6.7	15.0	18.4	12.1	21.8
HS	11.7	6.1	11.7	9.7	2.6	37.9	2.0	26.6	12.6	13.1	6.3	12.6
AR	12.9	12.4	4.7	11.8	4.5	26.7	8.4	19.7	7.8	18.5	3.8	27.6
TS	11.5	8.6	12.4	2.4	9.1	16.2	6.0	22.9	8.5	10.0	9.0	1.9
2nd Language Means	13.0	7.0	9.9	7.3	7.2	25.0	5.6	18.9	11.0	15.0	7.8	16.0
DE	10.8	4.6	12.3	4.5	12.2	9.8	10.7	4.9	8.1	10.0	7.1	7.6
AP	11.8	4.4	19.0	8.3	8.7	24.4	5.8	10.5	12.1	11.2	7.4	5.9
MB	5.8	7.2	2.5	7.4	17.1	12.4	15.1	6.6	11.4	12.3	6.8	16.1
HP	16.9	7.4	12.7	11.3	16.4	19.9	12.1	10.7	7.4	11.8	6.5	14.4
Dialect Means	11.3	5.9	11.6	7.9	13.6	17.6	10.9	8.2	9.8	11.3	6.9	11.0
Grand Means	12.2	6.5	10.8	7.6	10.4	21.3	8.3	13.6	10.4	13.2	8.4	13.5

both on the relevant story while TS readers show few non-words (1.9%) on their relevant story. The one standard story, 51, read by fourth graders generated considerably more non-words than the mean for fourth graders and sixth graders on other stories which is relatively consistent at slightly more than 13%. Omissions, though highest in second grade, range lower than among fourth and sixth graders. Omissions are higher on all three standard stories than on culturally relevant stories.

What stands out is dramatically lower percent of non-words in second grade readings.

The figures reported above do not include repeated omissions of a word or recurrent non-word attempts at the same word. These are separately coded. We plan, in subsequent studies not reported here, to study the phenomenon of repeated miscues. Greene's dissertation (Greene, 1974) is a beginning for such studies.

Part 8 - Word and Free Morpheme Miscue Types*

The majority of all miscues can be coded on the word and free morpheme level. About 7% of all miscues in this study are either complex miscues with no separable word level miscues or involve intonation beyond the word level. Furthermore, about 80% of the word level miscues are substitutions. Generally, about 10% of word level miscues are omissions. About 4% are insertions. Word level reversals are under 1%.* Table 4-45, 46, 47 present this data.

Only in our fourth grade data does any difference show between dialect and second language groups taken as wholes in any word level miscue types. Substitution miscues represent about 85% of second language groups' miscues, but only about 73% of dialect groups' miscues. This difference relates to substantially higher percents of insertions and omissions among the latter groups. To some extent, this difference may be accounted for by the relatively strong tendency these fourth grade second language readers have to substitute non-words rather than omitting.

In general, groups produce similar distributions of word level miscue types for the two stories they read. But there are exceptions. These may reflect the influence of the stories' characteristics on the miscue types.

Most groups of second graders produce quite different rates of non-word level miscues on the two stories, even though means are essentially the same for all groups. A few second grade groups show sharp story differences for substitutions, insertions, and omissions.

All fourth grade groups have higher levels of non-word miscues on relevant than standard stories. Few other notable differences show up.

No contrasts show for sixth graders except a few for individual groups on specific types.

Substitutions

As we've indicated elsewhere, substitutions are either real words or non-words. Non-words are less frequent among second graders, though that influences the rate of omission more than the rate of substitution. Seven percent of all second graders' miscues are non-words. Twenty percent of fourth grade miscues on story 51 and 16.9% of all miscues are non-words, while 13.3% of sixth grade miscues are non-words.

*This analysis does not include either repeated substitutions of one word for another or repeated omissions of a word.

Table 4-45

WORD AND FREE MORPHEMES: SECOND GRADE GROUP

	<u>Standard Story</u>					<u>Culturally Relevant Story</u>				
	Unin- volved	Sub	Ins	Omit	Rev	Unin- volved	Sub	Ins	Omit	Rev
NA	7.4	74.2	2.1	15.8	.5	4.3	76.3	3.8	10.8	4.8
HS	12.2	72.4	3.7	11.7	--	6.2	80.1	1.0	11.7	1.0
AR	2.9	82.2	1.5	12.9	.5	5.3	85.9	1.2	4.7	2.9
TS	6.9	75.3	5.2	11.5	1.1	15.4	64.6	4.3	12.4	3.3
MEANS	7.4	76.0	3.1	13.0	.5	7.8	76.7	2.6	9.8	3.0
DE	9.2	72.8	6.7	10.8	.5	9.5	70.9	5.6	12.3	1.7
AP	6.4	80.8	.5	11.8	.5	9.3	71.7	--	19.0	--
MB	5.8	85.5	2.9	5.8	--	5.4	91.1	1.0	2.5	--
HP	8.0	67.7	6.9	16.9	.5	4.4	76.5	5.4	12.7	1.0
MEANS	7.4	76.7	4.3	11.3	.4	7.2	77.6	3.0	11.6	.7
MEAN TOTALS	7.4	76.4	3.7	12.2	.5	7.5	77.2	2.8	10.7	1.9

Table 4-46

WORD AND FREE MORPHEMES: FOURTH GRADE GROUP

	<u>Standard Story</u>					<u>Culturally Relevant Story</u>				
	Unin- volved	Sub	Ins	Omit	Rev	Unin- volved	Sub	Ins	Omit	Rev
NA	.5	86.3	.5	12.7	--	2.9	86.3	4.4	5.9	.5
HS	6.7	89.2	1.5	2.6	--	16.1	80.9	1.0	2.0	--
AR	6.9	85.6	3.0	4.5	--	7.8	80.8	3.0	8.4	--
TS	6.1	81.3	3.5	9.1	--	7.9	85.6	3.0	6.0	.5
MEANS	5.1	85.6	2.1	7.2	0	8.7	83.4	2.9	5.6	.3
DE	6.8	72.7	8.3	12.2	--	8.7	73.3	6.8	10.7	.5
AP	6.9	77.7	7.3	8.7	--	8.1	77.9	8.2	5.8	--
MB	4.2	72.9	4.8	17.1	1.0	8.5	67.0	8.5	15.1	.9
HP	9.5	71.1	2.5	16.4	.5	13.1	70.9	3.9	12.1	--
MEANS	6.9	73.6	5.7	13.6	.4	6.6	72.3	6.9	10.9	.4
MEAN TOTALS	7.2	80.0	3.9	10.4	.2	7.7	77.9	4.9	8.3	.4

Table 4-47

WORD AND FREE MORPHEMES: SIXTH GRADE GROUP

	<u>Standard Story</u>					<u>Culturally Relevant Story</u>				
	Unin- volved	Sub	Ins	Omit	Rev	Unin- volved	Sub	Ins	Omit	Rev
NA	3.0	76.7	5.3	15.0	--	5.4	75.2	6.8	12.1	.5
HS	5.1	78.5	3.3	12.6	.5	3.6	83.4	6.3	6.3	.4
AR	4.9	83.4	3.9	7.8	--	5.7	88.6	1.4	3.8	.5
TS	6.7	82.9	1.9	8.5	--	8.5	79.6	2.4	9.0	.5
MEANS	4.9	80.4	3.6	10.9	.1	5.8	81.7	4.3	7.8	.5
DE	7.1	82.9	1.9	8.1	--	5.8	81.4	3.8	7.1	1.9
AP	7.1	73.8	6.5	12.1	.5	6.9	80.7	5.0	7.4	--
MB	5.8	75.9	6.4	11.4	.5	3.5	82.4	6.3	6.8	1.0
HP	7.8	81.8	3.0	7.4	--	9.4	78.6	5.5	6.5	--
MEANS	7.0	78.6	4.5	9.8	.3	6.4	80.8	5.2	7.0	.7
MEAN TOTALS	6.0	79.5	4.1	10.4	.2	6.1	81.3	4.8	7.4	.6

About half of all substitution miscues are single morpheme for single morpheme substitutions.

Omissions

Again there are basically two kinds of omissions, intentional and unintentional. Since there are no sure ways of differentiating these, we choose not to do so.

Here are some examples of miscues that are probably unintentional omissions from DE4 on S49:

. . . so she said ^{didn't} don't worry^u, Andre. . . (lines 0314, 0315)

Suddenly Andre cried out, "Suzanne! . . . (line 0306)

^c He put it off again. (line 0425)

. . . to tell Grandfather all about it. (line 0510)

. . . across the ^c frozen bay. (lines 0701, 0702)

This paragraph from an MB2 reader shows some omissions that are probably intentional on S44:

0206 "There's going to be a big contest at Mr. ^{go} ^{camma} ^{Mrs.}

0207 ^{Valley's} ^{store} Vine's Candy Shop.", exclaimed Penny^o

0208 ^{Where} ^uThere will be prizes for children who take

0209 the best pictures. You should see those

0210 prizes.

In reading the standard stories, groups do show a wide range of omissions. MB second graders show 5.8% omission miscues while HP second graders omit almost 17%. The former have an even lower rate on their other story, 2.5%, which seems to reflect a strategy they've been taught.

Omission miscue percents on Story 51 range from HS4 with 2.6% to MB4 with 17.1%. The latter are high with 15% on their relevant story, showing a sharp contrast to second graders from the same population. We've already pointed out that all fourth grade second language groups show low omission miscue rates.

On story 53, our sixth grade groups range from 7.4% for HP6 to NA6 with 15%. Mean omission miscue percents are generally higher on the standard story in sixth grade.

Insertions

Insertions are 3.7% of second grade miscues on S44 and 2.8% on relevant stories. DE2 and HP2 have relatively high insertions on both stories. AP2 has almost none on both stories. Fourth grade dialect groups, excepting HP4, show much higher insertion rates than second language groups. They are also much higher than second grade dialect groups. In a few groups, these exceed 8%. Sixth grade groups are more varied with NA6 on both stories and AR6 on the relevant story, exceeding 6%.

One subject, DE4-213, has 15.4% insertions on S49 and 11.1% on S51.

Here are some of her miscues on S51:

"What^a queer experiment was it this time?" (line 0106)

. . . to make it look like^{it} new. (line 0201)

Freddie nodded^{his head} sadly. (line 0217)

. . . he still thought it^{was} more fun to pretend. . . (line 0221)

. . . later^{in the} that day. . . there was only one^{a little} thing wrong. (line 0301) (line 0321)

. . . just like^{you} Uncle Oscar. . . he knew^{that} the alphabet. . . (lines 0322, 0323) (line 0324)

. . . talking angrily to^{his} father. . . to wake^{up} the dead. (line 0408) (line 0413)

. . . just as he got^{to} the parts in^{the} place. . . (line 0509)

. . . he ran^{to} the wire up. . . it^{could} touched^{the} the cap. . . (line 0608) (line 0611)

... where ^{the} fishermen were repairing. . . (line 0203)

But Andre was certain he had ^{not} put the ax into the boat. (line 0401)

Grandfather came in. ^{and} He had been working. . . (line 0409)

... tomorrow will ^{be} ^{the} time enough. . . (lines 0415, 0416)

This one reader's insertions demonstrate several things about insertions: 1) They are not random. 2) They often fit the constraints of syntactic and semantic context. 3) They reflect the reader's prediction and therefore, are indicative of the reader's concepts. 4) They often involve optional elements. That is, elements implicit in the deep structure but optional in the surface. 5) They often involve peripheral cues (see section 9 in this chapter). 6) They're often corrected when they are semantically unacceptable in the full text. 7) They're often function words.

Reversals

Rarely do word level reversals exceed 1%. In many cases, there are none for an entire group. Second grade groups produced more word level reversals than the other grades. Fourth graders produced fewest (our uptight fourth grade phenomenon again).

A common form of word reversal occurs in dialogue carriers. Note these examples from a second grade Navajo reader on S68:

"Do you want a bird?" his father asked. (line 0501)

"What pet do you want?" his father ^{said} asked. (line 0605)

"A dragon!" his father said. (line 0704)

"Why are you taking that?" his father asked. (line 1004)

"Yes," Henry said, (line 1008)

This same reader, on the standard story (S28) only produced one such reversal:

"He is called Happy Joe." Ted ^{said} asked, (lines 0405, 0406)

"Is this balloon your surprise?" (line 0407)

It should be noted that every example is a switch from the "said" to the "said _____". In addition, this switch only occurs when the subject verb sequence follows the dialogue. In the standard story, most dialogue carriers follow the "said _____" form. In the relevant story, almost all dialogue carriers are in the form of "said". It appears that this reader is reversing words because of an inflexibility in her own rules for verb-subject sequence in dialogue carriers in post positions (following the quotation).

Another form of word reversal is illustrated by our TS second graders on their relevant story, S86:

TS 106: "Is it ^{too} so bad to be different?" (line 0304)

"Is it not a good thing to learn, my son?" (lines 0316, 0317)

TS104: "Is it so bad to be different?" (line 0304)

will you help. . . (line 0102)

TS101: "Is it so bad to be different?" (line 0304)

". . . my friends laugh when they hear you talk in English Spanish." (lines 0218, 0219)

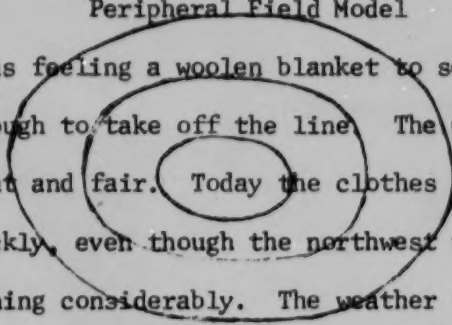
Here all examples involve not simply reversing words, but shifting syntactic deep structure. Three subjects shifted from question to statement on the same pattern. This example is complicated by the author's using a special style to represent foreign speech. What's cause and what's effect is not possible to determine in a single incidence, but when there are several such examples where the word reversal relates to a shift to another deep structure, it seems clear that prediction of structure is producing a shift in surface sequence rather than vice-versa.

Part 9 - Peripheral Visual Field Influence

It is possible in reading that the reader is influenced by graphic features which appear in the visual field around the point of fixation. Such influence would be expected in the theory on which this research is based. The readers do not process graphic features sequentially; they are predicting, sampling, selecting. They may attend to or be influenced by a feature in the peripheral visual field as they seek meaning.

We hypothesize that the peripheral field is a flattened circle with the horizontal dimension wider than the vertical because of the influence of the linearity of the display on the readers.

Peripheral Field Model



Janie was feeling a woolen blanket to see if it was dry enough to take off the line. The morning was bright and fair. Today the clothes would dry quickly, even though the northwest wind was lessening considerably. The weather today was certainly nothing like yesterday's.

In our study, because of computer search limitations, we translate this into the area of the five lines around the miscue, including the same line and two lines above and below.

Peripheral Field Categories

S68

0701 That night Henry said to his father
0702 "I thought of the pet I want.
0703 It's a dragon."
0704 "A dragon!" his father said
0705 "A dragon might be hard to find.
0706 Pet stores don't have dragons.
0707 And I don't know who has
0708 baby dragons to give away."

1 far

2 near

3 sharp

2 near

1 far

We consider the same line as sharp field, the line above and below as near, and the line above that as far periphery.

We only search for an expected response (ER) that matches exactly the observed response (OR). That eliminates our dealing with word parts or similar appearing words.

Here are examples of miscues found in the peripheral field:

- (Substitution;
on same line) to do ~~your~~^{your} studying in the room where ~~your~~ baby brother
(S53 line 0104)
depends on it." (S53 Line 0314)
- (Substitution;
1 line above) "All right," she said after a pause, "Mr. Barnaby will see
(S53 Line 0315)
- (Insertion;
1 line below) Andrew's eyes dropped^{down} then closed. I went on reading,
and when I looked down again, Andrew was asleep.
(S53 Lines 1013, 1014)
- (Substitution;
1 line below) pumpkins. There ~~the~~^{are} cornstalks
grew taller than you are. (S81 lines 0108, 0109)
- (Substitution;
2 lines below) in a sickly whisper. "You!" He stood with his ~~feet~~^{finger} wide
apart and brought his hand up slowly, pointing at me.
"You!" The pointing finger rose and fell with his heavy
(S53 lines 0906,
0907, 0908)
- (Substitution;
2 lines above) vines. Now she walked over to the camera
She began to sniff at it. She sniffed at its
sides and its ~~corners~~^{camera}. She thumped the (S44 lines 0406,
0407, 0408)

(Insertion;
1 line above) trotted up beside Nehana and me saying in a whisper

that we should not dismount. We rode on, bunched ^{me}
(S81 Lines 1313,
1314)

Here are some examples of search procedure limitations:

1. The computer may not pick up the ER closest to the miscue:

S67
1008

(He) climbed on top of Saburo.

1009

"What do you see?" ^{cried he} called Keoki.

1010

Antone gave a yelp and jumped down.

1011

"A big, hungry mouth!" he cried. "With

S86
1507

"And I think you will laugh at the way I

1508

speaks. But, ^{you} with your help, maybe I can

S81
0121

^{he} In a panic I threw the tortillas over the wall, then

0122

the blanket. The blanket caught on the pieces of glass.

2. The computer does not pick up variations of ER:

S67
1207

"Let's go back and look again," said Keoki.

1208

^{it} Up the palitrail they went again, creeping

S81
0604

We did the same and the horses broke into a trot.

0605

^{Horse} Neither Running Bird nor I knew how to ride a

S83
0604

that thing he had found.

0605

He remembered the morning he had found it there. At first, when he

S86
0217

You are saying. Their fathers and mothers

0218

↑
speak English, and my father friends laugh when

3. The computer does not pick up peripheral field influence in complex miscues unless a submiscue is coded.

S67
1402

when they did, they saw ^{the gate open} that the gate in

1403

the fence was open.

4. The computer does not pick up ER which shares graphic and phonic similarities with miscue:

S81
0308

^{coffee}
man's coffin

0309

"I have chosen three good horses," Nehana whis-

0507

the door. Nehana ran toward the cottonwood trees

0508

and we followed her, the black dog at my ^{knees} heels.

0512

Saddled and rode toward it, moving slowly through the ^{black}

0513

mesquite until the sound of weeping and the crack of

↓
he looked at the ground, and turned a rock ^{around} over with
(S83 line 0402)

5. The program doesn't take memory into account:

S53

0806 "Get that baby over here!" he shouted. "I'm a very

0807 busy man."

0808 On the way to the station I kept ^{yelling} telling my parents that

As evident in Tables 4-48,-49,-50, peripheral field involvement varies more between groups than between grades. For all subjects, 16.1% of all miscues involve peripheral field. For all second grade, the mean is 16.5%; for fourth grade it is 16%; for sixth grade, it is 15.8%.

If these percents are translated into peripheral miscues per hundred words, then second graders have a mean of 1.88% compared to means of 1.61 for both fourth and sixth graders.

On the other hand here are the overall peripheral involvement percents for each group including all three grades:

TS-19.2; DE-18.8; NA-17.6; HP-16.5; AP-15.8; MB-14.8; HS 13.6; AR-12.3.

Dialect and second language groups are interspersed in this rank order of language groups.

Least amount of peripheral involvement in miscues is 6.8% for HS4 on their relevant story. Highest is NA2 on their standard story, 25.9%. The story itself contributes to some variation in peripheral involvement. HS4 has 14.6% on their standard story, while NA2 drops to 16.9% on their relevant story. For most groups, however, there is only a small difference from one story to the other.

Mean involvement in second grade standard stories is 17.7%, compared with 15.1% on relevant stories. Fourth grades show 17.1% and 14.8%; for sixth grades, the figures are 16.1% and 15.7%.

Locus of Cues

In most groups, there are as many or more miscues with peripheral involvement with cues in the one line of sharp focus as there are in the two lines of near or far periphery.

Table 4-48

MISCUES WITH PERIPHERAL INVOLVEMENT:

SECOND GRADE GROUP

	Unin- volved	Standard Story				Sharp Per line		Unin- volved	Relevant Story				Sharp Per Line
		Far Total	Near Line	Total	Line				Far Total	Near Line	Total	Line	
NA	74.1	11.4	5.7	9.5	4.8	5.1		83.1	4.8	2.4	9.0	4.5	3.2
HS	82.9	8.1	4.1	2.4	1.2	6.5		86.1	7.2	3.6	2.1	1.1	4.6
AR	86.2	4.9	2.5	4.6	2.3	4.3		85.5	6.7	3.4	6.7	3.4	1.2
TS	77.4	7.0	3.5	8.1	4.0	7.5		79.8	8.5	4.3	6.2	3.1	5.4
DE	82.4	7.2	3.6	5.4	2.7	5.0		78.6	8.6	4.3	5.7	2.9	7.1
AP	85.5	5.3	2.7	4.8	2.4	4.3		90.7	4.5	2.3	3.4	1.7	1.4
MB	86.0	4.2	2.1	5.0	2.5	4.8		89.9	1.0	.5	5.1	2.6	4.0
HP	83.8	6.1	3.1	5.6	2.8	4.5		85.5	8.1	4.1	3.0	1.5	3.4

Table 4-49

MISCUES WITH PERIPHERAL INVOLVEMENT:

FOURTH GRADE GROUP

	Unin- volved	Standard Story				Sharp Per line		Unin- volved	Relevant Story				Sharp Per Line
		Total	Far Line	Total	Near Line				Total	Far Line	Total	Near Line	
NA	88.6	4.4	2.2	2.5	1.3	4.4		80.2	4.1	2.1	5.3	2.7	10.4
HS	85.4	5.1	2.6	3.3	1.7	6.3		93.2	3.3	1.7	1.8	.9	1.6
AR	86.2	5.7	2.9	2.4	1.2	5.7		89.1	4.5	2.3	4.3	2.2	2.1
TS	78.2	5.4	2.7	8.0	4.0	8.3		83.7	5.6	2.8	4.9	2.5	5.8
DE	78.1	8.6	4.3	5.2	2.6	8.1		82.3	5.3	2.7	9.3	4.7	3.1
AP	84.9	6.9	3.5	3.2	1.6	5.0		82.1	5.1	2.6	4.9	2.5	7.9
MB	80.4	9.0	4.5	3.6	1.8	7.0		85.2	4.7	2.4	5.7	2.9	4.4
HP	81.4	7.4	3.7	4.3	2.2	6.9		85.9	6.3	3.2	4.3	2.2	3.5

Table 4-50

MISCUES WITH PERIPHERAL INVOLVEMENT:

SIXTH GRADE GROUP

	Unin- volved	Standard Story				Sharp Per line		Unin- volved	Relevant Story				Sharp Per Line
		Total	Line	Total	Line				Total	Line	Total	Line	
NA	83.2	5.2	2.6	5.4	2.7	6.2		85.0	3.3	1.7	4.5	2.3	7.2
HS	84.0	5.7	2.9	5.1	2.6	5.2		86.6	5.6	2.8	3.6	1.8	4.2
AR	88.6	4.0	2.0	3.4	1.7	4.0		90.9	3.3	1.7	1.7	.9	4.1
TS	83.6	5.8	2.9	4.1	2.1	6.6		82.0	7.3	3.7	5.0	2.5	5.6
DE	80.9	6.9	3.5	5.0	2.5	7.2		84.7	4.8	2.4	4.7	2.4	5.8
AP	83.0	6.5	3.3	4.5	2.3	6.1		77.9	6.6	3.3	5.8	2.9	9.7
MB	85.6	4.0	2.0	5.1	2.6	5.3		84.1	6.1	3.1	4.8	2.4	5.0
HP	82.0	5.6	2.8	5.4	2.7	7.1		83.9	4.2	2.1	4.5	2.3	7.4

Exceptions are NA2 standard story (5.7 miscues per line for far periphery compared to 5.1% sharp focus) and NA2 on the relevant story, 4.5% near compared to 3.2% sharp; AR2 relevant story far 3.4, near 3.4, sharp 1.2; AP2 relevant story 2.3% far, 1.7 near, 1.4 sharp; HP2 relevant 4.1 far, 3.4 sharp; HS4 relevant 1.7 far, 1.6 sharp; AR4 relevant 2.3 far, 2.2 near, 2.1 sharp; DE4 relevant 4.7 near, 3.1 sharp.

There is no pattern of near periphery being more likely than far as a locus for cues.

Our computer program does not differentiate between preceding and following text. To check whether there was more peripheral influence from the area above as compared to below the line of the ER, we checked, by hand, one group and one randomly chosen subject from each other group on our sixth grade standard story 53.

Table 4-51

LOCUS OF PERIPHERAL CUES

	ABOVE	BOTH	BELOW
NEAR	92	15	66
FAR	51	5	39
TOTAL	143	20	105

The figures (Table 4-51) show a pronounced tendency for cues above the ER line to be more frequent than either cues both above and below the line or below the line only. There may be a memory factor operating, since the reader could be influenced by remembering a cue, previously seen rather than perceiving it in the visual periphery.

Substitutions and Insertions

Peripheral field miscue may be of two types: Substitutions of a word in the periphery for the ER or insertions of words from the periphery.

Table 4-52 demonstrates that, for most groups on most stories, far higher percents of insertions have peripheral cues than substitutions. In half of the group data for each story, over half the insertions have peripheral cues.

Insertions are far less frequent than substitutions, however. Among second graders, only 3.2% word level miscues were insertions while 76.8% were substitutions. In sixth grade, insertions are 4.4% compared to 80% substitutions. Insertions are also very likely to involve function words. Since function words are likely to be high

Table 4-52

SUBSTITUTIONS AND INSERTIONS WITH PERIPHERAL CUES

	Second Grade				Fourth Grade				Sixth Grade			
	Standard Sub	Ins	Relevant Sub	Ins	Standard Sub	Ins	Relevant Sub	Ins	Standard Sub	Ins	Relevant Sub	Ins
NA	23.6	50.0	19.4	57.2	12.2	--	20.0	87.5	16.5	30.0	14.2	57.1
HS	16.3	33.4	15.5	50.0	12.2	100.0	6.8	100.0	20.4	50.0	12.5	78.6
AR	11.0	33.3	17.2	--	13.3	50.0	9.8	66.7	11.9	37.5	8.1	--
TS	20.4	66.7	21.3	75.0	15.9	57.2	17.5	83.3	17.2	25.0	13.5	50.0
DE	15.9	45.5	20.2	40.0	18.5	59.9	14.6	61.6	19.2	--	10.8	62.5
AP	7.4	--	9.9	33.3	12.7	20.1	13.6	40.0	15.4	21.3	12.9	44.4
MB	14.3	66.7	29.1	13.0	21.0	37.5	13.6	26.2	18.3	14.3	16.8	53.9
HP	13.6	38.5	12.9	54.6	16.5	20.0	9.1	71.5	23.1	33.3	14.8	77.7

	Substitution	Insertion
Mean for second grade	16.8	41.1
Mean for fourth grade	14.2	55.1
Mean for sixth grade	15.4	39.8

frequency words, there is a high possibility that they will be incidentally found in any five line sequence. The reader may be inserting the function word quite independently of its occurrence in the visual field or its occurrence may appear to the readers to confirm their predictions.

All we can say with assurance is that insertions are likely to be function words and have a strong possibility of having a cue in the peripheral field.

Still, most peripheral field related miscues are substitutions. And over 90% of these are single morpheme words substituted for single morpheme words.

Highest Peripheral Field Involvement

MB307, reading story 44, has the highest number of peripheral field miscues-per-hundred-words of any subject on any story, 4.52. This figure represents a total of approximately 22 miscues, presumably influenced by the peripheral field.

There are other examples of peripheral field involvement in this subject's reading not picked up by the computer because of search limitations (S44):

- 0107 Jack Jones always went around in ^{over}overalls or
- 0108 a sun suit.
- 0110 . . . white fur coat for anything. And she always
- 0111 had that spot of black fur ^{anybody hear her}above her nose.

Twelve of the peripheral field miscues were substitutions or insertions of function words, which are relatively frequent in the text.

This reader's peripheral field miscues are predominantly located one line above or below the ER with about equal distribution of above and below.

The reader had a mean graphic similarity score on this story of 4.63, which is a bit below average. The retelling score was 20, the lowest score in that group for that story. The comprehending score was 52, the second highest in the group.

The following are examples of semantically acceptable peripheral field miscues which this reader produces on S44:

"I would like to win one of ^{them} those." (lines 0215, 0216)

He printed them upstairs in his ^{the} darkroom. (lines 0417, 0418)

He was standing on ^{the} a rock in the rose garden. (lines 0502, 0503)

I'm afraid you have done something to ^{the} this picture. (lines 0412, 0413)

One picture showed a ^{long} large black crow with

a long piece of string in his bill. (lines 0501, 0502)

The following are examples of the unacceptable peripheral field miscues this reader produces on S44:

Then ^{the the} There will be prizes for children who. . . (line 0208)

Now ^{the} she walked over to the camera. (line 0406)

"It's ^a the best picture I ever saw!" (line 0504)

She suddenly wanted a drink ^{and the} and ^{run} ran into the house. (lines 0402, 0403)

Kitten Jones would not have changed her ^{for} white fur coat for anything. (lines 0109, 0110)

There is an additional caution which needs to be considered regarding peripheral cues. Some of our stories are basal reader selections with deliberately repetitious use of words. That would increase the possibility of words being in a five line sequence by chance particularly in early levels with highly constrained vocabulary.

The stories we used which fit this controlled vocabulary description best are: Kitten Jones (second grade standard) 17.1%, Two New Hats/Big Surprise (easier second grade standard) 21.5%, My Name Is Miguel (TS2 relevant story) 20.2%. All of these have average or above average percents of peripherally related miscues. Fourth and sixth grade basal stories would be less effected. Freddie Miller (fourth grade standard) 17.1% and My Brother Is A Genius (sixth grade standard) 16.1% and Andre's Secret (17.7%) are average.

Trade book stories we used range much more: Sweet Patootie Doll (AP2 relevant story) 9.3%, Fareedah's Carpet (AR2 relevant story) 9.1% to Sky Dog (DE2 relevant story) 21.4% and Cat Fight (AP6 relevant story) 22.1%.

It appears that there may be some effect of controlled vocabulary on peripheral field phenomena.

The Effect of Peripheral Cues

Our modest evidence seems to add up to the conclusion that there is a minor phenomenon of the readers pulling visual cues in from the periphery. These tend to be semantically acceptable. Many insertions have peripheral cues, particularly those which are function words.

Our populations showed differences in peripheral involvement. That may relate to aspects of proficiency, story differences, instruction as well as to group differences per se.

CHAPTER V

FOUR DIALECT GROUPS

A number of years ago, as the exploration of the relationship of dialect to success in reading was just beginning, it was suggested that the gap between the dialect of the learner and the dialect of instruction would have a strong effect on success in learning to read (Goodman, 1965). After several years of thorough miscue analysis study of urban black and white readers at different grade levels and levels of reading proficiency, the conclusion was reached that the prior premise was wrong and that, in itself, dialect difference did not create barriers to reading development.

Miscue study also has shown that there are important differences between receptive and productive control of language. It appeared that our urban black readers had considerable receptive control over teacher dialects and school dialects, particularly as they are reflected in reading materials. This was true even though they did not carry over this control to consistent productive use of the higher status dialects.

This receptive control is the simple result of communicative need. In communities, particularly urban communities where different ethnic and socio-economic groups speak notably different dialects, there is some need for communication between groups. This need is somewhat proportionate to the actual amount of interaction that takes place. Groups living side by side can be almost totally cut off from any on-going interaction.

In modern, urban American society, the dialect interaction is overlaid by mass media: radio, television, movies, newspapers. It is also overlaid by compulsory public education. Ironically, it is the speakers of low status groups in the society who are most likely to acquire early, relatively effective, receptive control over the dialects of others in the linguistic community. They are the ones who must understand the dialects of television, of teachers, of policemen, of merchants.

Past miscue studies confirmed the receptive control of urban Blacks and suggested that the only implicit dialect barrier to learning to read was the confusion and inhibition that could be produced in learners by teacher rejection or ridicule of the dialect of the learners.

Typically, the urban black children in our studies shifted toward their own dialect in their oral reading and retelling as they dealt receptively with the author's written language dialect (Goodman & Buck, 1973). That shift produced no meaning loss and reflected no lack of control of the reading process. But teachers who did not appreciate

this phenomenon could equate difference with reading deficiency and undermine the confidence and ease of the learners.

In these current studies, a key question is whether other low status dialect groups in more isolated and homogenous communities would exhibit similar or different patterns from the urban black students.

We chose four groups of American children with low-status dialects:

(DE) Our Downeast Maine group is from a coastal village in Maine. The term Downeast was first used by sailors to describe the area they reached as they sailed in a northeasterly direction, downwind. It later applied to the people and their speech.

(AP) Our Appalachian group is from a small Cumberland Gap town in Tennessee. They are the folk of the hills and hollows of the Appalachian Mountains.

(MB) Our Black Mississippi subjects are from a rural county along the Mississippi, west of Jackson.

(HP) Our Hawaiian Pidgin group is the only urban group of the four, though the dialect they speak is one that developed in the sugar and pineapple camps of rural Hawaii. Their dialect is a creole related to other pidgins and creoles that stretch across from West Africa to the Orient following the trail of explorer and empire. It's a trail of the transportation and intermixing of people, culture, and language.

The results of these studies are limited by the fact that we looked only at average readers in each of three grade levels in each population. Average here is defined as typical of the group. But the extreme low achievers and very high achievers are not in the study. We seek, in these studies, to extend into more universal terms, the interaction of low status dialect with learning to read. We ask whether the realities we find in Urban Blacks are also true of other low status dialect speakers.

What we've found is a qualified "yes" to that question. It would perhaps be easier to write this report if each group had exhibited sharply different patterns, either qualitatively or quantitatively in their oral reading and miscues. But in fact the groups do not present sharp contrasts; there are differences, but they exhibit much more similarity in the process, strategies, and miscue patterns they show. Differences in reading are much more likely to be produced by materials, proficiency, purpose, setting than by dialect, per se.

The most basic reason for that similarity is the reading process itself. These studies confirm the essential unity of the reading process. All readers must construct meaning through the same psycholinguistic process. They must begin with a print display created by an

author; they must predict graphophonic features and patterns, syntactic features and patterns, semantic features and patterns. They must use their knowledge of the language and draw on their conceptual background. They must predict, sample, confirm, correct. They must develop comprehension strategies.

Past miscue studies have shown that it is not the process, but the way it is used that varies among readers of different proficiency.

We expected in this study that some of our dialect groups or some individuals within them might have insufficient receptive control over the language of the texts. We thought that they might then show essentially ineffective and inefficient reading. While we find a range of individual differences within groups in efficiency and effectiveness, and while we find modest statistical differences between our groups on various miscue variables, none of our findings points to evidence that any of the four groups lacks a considerable degree of control over the language of the text.

We find individuals exhibiting more or less efficient strategies: heavy omission or none; strong peripheral influences or very little; judicious correction, minimal correction or over correction; strong or weak comprehending; strong or weak syntactic control. Our readers are sometimes too cautious and sometimes too headstrong. Some show the same patterns and strategies on both stories; others show notable differences when the going is harder or easier. But those are differences within groups. If these differences are more interesting than the differences between groups, that supports the basic conclusion that dialect difference in itself, even with the extreme differences we find in our four dialect groups, is not a barrier to reading development.

In the discussion that follows we present some background on the dialect and reading of each group: we review the group data for the three grades in each population; we show how each dialect manifests itself; and we explore in detail some of the less usual patterns individual subjects exhibit.

The Downeast Maine Group

Our Downeast Maine readers come from a rural fishing town on the sea coast of Maine. It is Downeast by Maine traditions harking back to the New England fisherman's description of following the East coast downwind. The geography, lack of urban development, and orientation to the sea have kept the people relatively isolated and the population stable.

New England is divided into two major dialect areas: *Western and Eastern. The Eastern New England dialect area includes the eastern halves of Connecticut, Massachusetts and Vermont as well as all of Maine and New Hampshire (Kurath, 1972). This area, however, is often further subdivided. The northeastern part, namely Maine and New Hampshire, according to Kurath (1954) is the most linguistically conservative segment of New England. He also notes that it is predominantly rural and remote from the large population centers and consists of sparsely settled areas. As a result, Maine and New Hampshire preserve many dialectal features lost in the southern part of the Eastern area.

McDavid (1958) calls Maine and New Hampshire a relic dialect area.

Both Eastern New England and the Southern coast are characterized by the loss of (r) before consonants and at the ends of words. However, the Eastern New England area has a distinctive feature not found on the Southern coast. That is the phonological rule that inserts an (r) whenever a word ending in a vowel is immediately followed by a word that begins with a vowel. In the Eastern New England dialect, one says Donnar and Norma, Normar and Donna, but never Norma and Donnar (Falk, 1973). This "intrusive r" also appears as the last sound of an utterance (Shuy, 1967).

The following characteristics are also found in New England pronunciation:

1. The effect of postvocalic r on the vowel in Northern New England has contributed to words such as orange, tomorrow, borrow assuming the /o/ of fall before /r/.
2. The merging of the vowel in law with the vowel in lot occurs in Eastern New England. Consequently cot-caught, hock-hawk, collar-caller become homophones.
3. Conditions for the vowel sounds in words such as room, roof, coop, and soot are confused, according to Kurath; however, the following generalizations seem to be true of Northern New England:
 - a. /u/ of full in broom and room
 - b. /ʊ/ of good in root, roof and soot
 - c. /u/ of food in coop

*This dialect summary is adapted from an unpublished doctoral study of the same Downeast subjects. (Smarr, J., 1977)

4. The vowels in words such as loam and gums may be either /u/ or /ʊ/ in Maine and New Hampshire.
5. The "broad a" pronunciation with the /a/ of Father in words such as calf, path, can't, glass, rather and pasture are common in Eastern New England.

Kurath and McDavid provide essential information on Eastern pronunciation.

There is less information in Maine dialect studies about syntactic features than either phonological or semantic features.

Here are some of the semantic features in DE dialect:

When unpleasantly surprised, a person says, It took the gimp all out of me, or when pleasantly surprised, you could have knocked me down with a feather, or Landsakes alive.

A poor housekeeper switched her work or gave it a lick and a promise. A codger was a singular old person who might be predicted to get his come-uppance.

Squizzle is used to mean wrinkle as in Her face was all squizzled up. Lug means to carry. In cahoots means to conspire or plot. To spell means to relieve. To spat means to quarrel.

A person with no judgment may be spoken of as crazy as a coot. An obstinate one will do something in spite of hell and high water. An excitable person flies around like a hen with its head cut off. An interfering person is told to tend to your own knitting. Noisy children are told to make themselves scarce or stop your yawp. A cross, exacting person is a fussbudget. (Perkins, 1928)

When you heft something you test its weight, but first you must get aholt of it and maybe you will tunk it a mite or give it a light rap. Maybe you will move it a whisker. You won't hoist it; you will heist it. It's a junk of wood -- not a hunk.

If you are moving a piano, you will find it gormy, as is your growing son, who is all feet and arms. A thicket is a puckerbrush. You go deer-huntin', but gunnin' for other game. You eat deer meat and not venison. (Dietz, 1975)

There is little research on reading among Downeast Maine children.

In recent years, Maine initiated a ten-year program of self-study in educational progress. The 1974 report of the Maine Assessment of Educational Progress compares Maine nine-year-old (fourth grade) children to other nine-year-old children in the nation in the area of reading. This report states that Maine children scored significantly above other children in the nation on 32 per cent of the 47 reading

items and significantly below on 15 per cent of the items. On 53 per cent of the items, there were no significant differences. These results show that Maine children do perform as well as others in the nation, at least on the same measuring device.

Skinner (1969, pp. 46-54), analyzed the language of five six-year-olds from a semi-isolated community in the mid-coastal Maine region. These five children's language samples were compared with language samples of three children from an equally isolated community. The latter children, however, attended school in a larger suburban center. All children were identified as having problems in learning to read. These eight language samples were then compared with one child who represented the middle-class standard speaker in the larger suburban center. Language samples were elicited through informal conversation and then through further discussion of six pictures, four of which were typical of the children's environment and two of which were atypical.

Skinner concluded that, though the semi-rural and rural children from Maine are not non-standard speakers of American English, they do, however, speak in a less than competent linguistic style. He saw the difficulty for these children in their inability to perform in a highly competent linguistic style, so necessary in his opinion, for learning to read. Skinner's conclusion seems to assume the deficit model of language. It illustrates the point that poor whites are also victims of equating language difference and deficiency.

A Downeast Fourth Grader

Here we focus on Mark (DE211 - See Table 5-1), one of 7 children. His parents have an elementary education. They were born in the same town they live in now. Mark's father is a laborer. Mark's last reading test score was at the 54th percentile; his IQ score was 89.

Mark's dialect shows the Downeast intonation and phonology represented, but not well, in the Pepperidge Farms commercials. This dialect is less distinct inland and in the cities than it is on the coast. In fact, as happened in other areas, the school people in Machias where we gathered our data told us for "real" Downeast dialect we should go out to the islands off shore.

Most notable among our subjects is the r-lessness in word final and some other positions:

Millah (Miller), mixchah (mixture), fathah, mothah, othah, eithah, mistah, dahk, cellah, scahed (scared), laddah, togethah, rulah, mohning (morning)

These show in both story readings and retellings as exemplified by his retelling of Freddie Miller, Scientist (S51).

Researcher: O.K., I want you to tell me as much about the story as you remember.

Subject: There was this boy, um, Freddie, he, he wanted to be a, a scientist when he grows up, like, like um. . .his uncle, I guess and he always kept making experiments. . .one time a clock didn't wo'k /work 'cause Eddie did su'm /something/ with (j) it and he went down cellah /cellar/ and fixed it and he put it on seven o'clock but it wouldn't, I don't think it still wo'ked and, he, when, his sistah /sister/ was hollering h-, um he ran up over the cellah steps and, and, and, um. . .his sister was in the closet, locked, the door cou'n /couldn't/ open. So he said I'll go get Mom and. . .Little, that's, his sister said, "don't, I-, I'm too sca'ed /scared/ stay heah /here/." Then Eddie saw a rulah /ruler/, two batteries, and. . .uh (pause) anyway he hooked dem /them/ two batteries togethah /together/ and he, he put, he got the rulah, he get, he went, to get the laddah /ladder/ and he put it up against the closet and let it down through the. . .um. . . trap. . .Was it? (pause) I don't know what it was.

R: Go on.

S: O.K. Um, when at the end he, he, all of them said he, he was just like Uncle Oscah /Oscar/. . .Uncle Maximillion, I mean, his Aunt Maximillion and Uncle. . .um (pause) and at the end they was all proud of him. . .for what he did (pause).

R: Is there anything else you remember about the story?

S: I can't think of anything.

Mark shows few non-phonological dialect features in the retelling of S51:

he went down cellar
he put it on seven o'clock
he hooked them two batteries together
they was all proud

In retelling Andre's Secret (S49) he uses:

he must've knew
they was going

In reading S51, Mark provides these examples:

'speriments/experiments

I'll go^{to} get (lines 0709-0710)

None of the chemicals in his set^{were} ~~was~~ harmful (lines 0223, 0224)

He thought a scientist's life [Ⓢ] were was . . . (lines 0217, 0218)

Both the latter, self-corrected examples are doubtful dialects, perhaps reflecting a tendency to treat were as more proper than was to compensate for his natural tendency to use was in plural contexts.

None of Mark's dialect is reflected in any large number of coded miscues. Less than 6% of the miscues of his group involve dialect or possible dialect in either story.

Mark finds S51, the standard story, a harder task than S49, the culturally relevant one. His non-dialect miscues per hundred words (MPHW) is almost double on the former, 8.57, as compared to 4.76 on the latter. Yet his general patterns are not too different. He corrects a higher percent on S49, 39.6%, but his corrections are high on S51, too, 35.3%. Semantic acceptability* is moderate: 50% on S51 and 45.1% on S49; syntactic acceptability is 56.9% and 52.1% respectively. About 20% of his miscues on both stories are semantically unacceptable but corrected.

Comprehending scores are 64.7% and 70.8%, respectively, which result in residual MPHW of 3.03 on S51 and 1.39 on S49. The latter is quite low even for this group on this story.

Mark's retelling scores are not too different on the two stories, 34 and 38, but he seems to have a deeper understanding of S49, which has the more relevant setting and which he found easier. He produces both theme and plot statements for the latter. "Speak up if you lose something" is the lesson of S49, he says.

Like the rest of his group Mark corrects over 1/3 of his miscues. About half the miscues he corrects are semantically unacceptable, however. He is usually successful when he corrects; unsuccessful attempts are 6% on S49 and 12% on S51, about average for his group.

Here are some examples of his corrections.

Semantically unacceptable before correction:

. . . experimenting [Ⓢ] with his [Ⓢ] +chemi- chemistry set (line 0102)

. . . always comparing [Ⓢ] Freddie [Ⓢ] with (line 0210)

he thought a scientist's life [Ⓢ] were was filled (line 0217, 0218)

*Figure includes all miscues acceptable in sentence or passage coded 3-6

(C) I will
 ... but he still thought (line 0221)

Semantically acceptable:

Q
 ... for (it each) week (line 0216)

(C) any
 ... give us _A trouble (line 0316)

Mark rarely makes persistent attempts at single occurrences of words:

(UC) chemisker
 chemistal
 a real chemist (line 0311)

(UC) replee
 riplee
 rip
 Elizabeth's tearful reply. (line 0514)

His repeated miscues tend to be on names: Andre becomes Andrew, Andree, Andrea, Suzanne is Suzannie throughout the story. Freddie is often Eddie.

Only about 1/6 of Mark's miscues are completely semantically unacceptable in both stories. Somewhat less than 1/3 (30%) of his miscues are semantically acceptable with prior text only on S49 while somewhat more (37%) have meaning acceptable only with prior in S51. The difference in patterns of semantic acceptability on the two stories is mostly in miscues semantically acceptable in the total passage (30% S49, 18% S51). He doesn't lose meaning entirely very often but his predictions are less fully acceptable in the harder reading task.

The relative difficulty shows differently in syntactic acceptability. Slightly more than 2/5 of miscues on both stories are fully acceptable; 30% of the miscues on S49 are acceptable only with prior; for S51 the figure is 35%. Differences come in the percents of miscues acceptable except for other miscues, 6% in S49 and 14% in S51. Transformations to different deep structures occur in 71% of miscues in S51 and 60% in S49. There is no transformation in 32% of miscues on S49 and 20% on S51. Semantic and syntactic changes from acceptable miscues are greater for Mark on S49 than on S51. Intonation is a major factor in only a few of Mark's miscues.

Mark shows 32% miscues on bound morphemes on S51, but only 12% on S49. The difference is in derivational and contractional suffixes and non-inflected forms. About 1/4 of Mark's miscues involve peripheral field, slightly high for his group.

Graphic and phonemic proximity scores are slightly higher for S49 than S51, and graphic scores on both stories are moderately higher than phonemic. But all these proximity scores are relatively low for the group and for the fourth grade. One-third of Mark's miscues in

both stories are complex or are insertions or omissions which do not have both ER and OR for comparison. Equal numbers are insertions and omissions on S49 (11%) but on S51, Mark has 20% omissions and only 6% insertions.

While 50% of Mark's substitutions are coded 4, 5, 6 for graphic proximity in S51, one fourth of his miscues are in that middle range on S49. But 21% have no similarity and 33% have only a single difference graphically as compared to 12% for each on S51. There is thus a greater spread of difference between ER and OR on S49 which the similar means conceal. One-fourth of miscues have no phonemic similarity in both stories. The contrast here is only at the upper level of the proximity scale. There is a single phoneme difference in 27% of Mark's miscues on S49 and 18% on S51.

So what do we have? A nine-year-old boy living in a fishing village in Maine who speaks a low status dialect of English and reads with reasonably good efficiency and effectiveness. He corrects a good deal, shows evident concern for syntax and strong pursuit of meaning. He is not overly concerned for graphic detail or phonemic correspondence. His Downeast dialect shows in his reading and his retelling but is involved very little in his miscues.

Downeast Fourth Grade

Mark shows a pattern through his miscues which is not much different than the other DE4 readers. They don't show as much variation as some of our other groups. (Table 5-1)

As a group they correct a great deal. One subject, 213, corrects 56% of her miscues in S49. All correct more on S49. The group mean is 40.3% as compared to 24.5% correction on S51.

Comprehending scores all are higher on S49, from 62.7-84% with a mean of 71.4%, compared to 44.7-68% with a group mean of 58.4% on S51. Correction of unacceptable miscues is the factor which accounts for these differences, since percent of miscues semantically acceptable before correction is only moderate and very close, 42.8% and 43.8% respectively.

As with Mark, the group actually shows greater syntactic acceptability on S51. The group means are S51, 60.8%; S49, 50.3%. Subject DE217, who really explodes on S51 and has the low comprehending score of 44.7%, has 70.2% syntactically acceptable miscues. This subject produces the greatest percent of non-word substitutions, 22% on S51.

The range of residual MPHWS, the most meaningful quantitative measure, is low and narrow on S49, 1.29 to 3.21 with a mean of 2.02. On S51, the group goes from Mark's 3.03 to DE 217's 7.58. The mean residual MPHWS is 4.56.

Table 5-1

DOWNEAST MAINE FOURTH GRADE GROUP STATISTICS

Subject Number Story Number	211		213		214		217		GROUP MEANS	
	51*	49**	51	49	51	49	51	49	51	49
Total Miscues	125	49	119	76	172	80	184	76	150	70.3
Coded Miscues	51	49	51	50	52	52	49	51	50.8	50.5
MPHW	8.57	4.86	9.75	8.08	11.02	8.8	14.29	7.00	10.90	7.18
Dialect Miscues	0	1	1	0	2	1	2	1	1.25	.75
MPHW	0	0	0.19	0	0.42	.17	0.58	0.14	.30	.17
Percent	0	2.0	2.0	0	3.8	1.9	4.1	2.0	2.48	1.47
Non-Dialect Miscues	51	48	50	50	50	51	47	50	49.57	49.75
MPHW	8.57	4.76	9.56	8.08	10.59	8.63	13.70	6.86	10.6	7.08
Residual MPHW	3.03	1.39	3.06	1.29	4.66	3.21	7.58	2.19	4.56	2.02
% corrected	35.3	39.6	36.0	56.0	14.0	21.6	12.8	44.0	24.5	40.3
% sem. acceptable	45.1	50.0	42.0	44.0	48.0	49	36.2	32.0	42.8	43.8
% sem. unacc. but corr.	19.6	20.8	26.0	40.0	8.0	13.7	8.5	36.0	15.5	27.6
Comprehending percent	64.7	70.8	68.0	84.0	56.0	62.7	44.7	68.0	58.4	71.4
% syn. acceptable	56.9	52.1	58.0	52.0	58.0	56.9	70.2	40.0	60.8	50.3
Proximity means										
graphic	4.32	4.68	4.78	4.45	4.86	5.54	4.71	5.36	4.67	5.01
phonemic	4.12	4.24	4.46	4.64	5.11	5.12	4.24	4.66	4.48	4.67
syntactic	6.86	7.16	7.00	7.19	7.10	7.32	7.00	7.80	6.99	7.37
semantic	6.04	6.61	7.24	7.55	6.20	7.38	5.94	6.75	6.36	7.07

* Freddie Miller, Scientist

** Andre's Secret

The strong preoccupation of this group with correction is reflected in these patterns: In S49 they correct 50% of syntactically unacceptable miscues and 56% of syntactically acceptable with prior but only 27% of fully acceptable miscues. In S51 these figures show a similar though less extreme difference, 30%, 37%, and 20%.

In reading S49 the group corrects 54% of miscues semantically acceptable with prior, 44% of semantically unacceptable, 35% of those acceptable in the sentence and only 25% fully semantically acceptable. Again, the pattern is the same in S51, but flatter; corrections are 34% of semantically acceptable with prior, 35% in sentence only, 22% of totally unacceptable semantically and 19% of fully acceptable.

Unsuccessful corrections are 12% in S51, compared to 8% in S49.

The group corrects miscues involving verbs (46%), noun modifiers (47%) and function words (51%) on S49, all quite high percents. On S51 only function word corrections (38%) approach these figures.

These readers show a very strong tendency in reading S49 to correct miscues with low phonemic proximity; 71% for no similarity miscues, 67% and 63% for those with only key sounds or ends in common.

In S51, the group corrects more than average numbers of miscues with low correspondence, but also corrects more frequently miscues in which beginning sounds are retained (58%).

We can conclude that these readers respond to graphophonic, syntactic and semantic cues in correcting their miscues. This group, in fact, uses correction strategies more effectively than they do prediction strategies. This is also reflected in this table of identical function replacements on the two stories.

Table 5-2

IDENTICAL FUNCTION SUBSTITUTIONS:

DOWNEAST MAINE FOURTH GRADE GROUP

	Noun for Noun	Verb for Verb	Noun Mod for Noun Mod	Verb Mod for Verb Mod	Function Word for Function Word	Contraction for Contraction
S49	61%	69%	55%	*	63%	33%
S51	73%	61%	60%	*	72%	33%

*Very small numbers make these meaningless

Table 5-3

DOWNEAST MAINE SECOND GRADE GROUP STATISTICS

Subject Number Story Number	201		202		203		210		GROUP MEANS	
	44*	82**	44	82	44	82	44	82	44	82
Total Miscues	38	32	83	54	107	46	51	48	70	45
Coded Miscues	38	32	51	50	52	46	51	48	48	44
MPHW	6.18	5.43	13.25	9.21	15.76	7.81	7.16	8.15	10.59	7.65
Dialect Miscues	0	1	1	2	2	0	1	3	1	1.5
MPHW	0.00	0.17	0.26	0.37	0.61	0.00	0.14	0.51	.25	.26
Percent	0.00	3.1	2.0	4.0	3.8	0.0	2.0	6.3	1.95	3.33
Non-Dialect Miscues	38	31	50	48	50	46	50	45	47	42.5
MPHW	6.18	5.26	12.99	8.84	15.15	7.81	7.02	7.64	10.34	7.39
Residual MPHW	1.79	0.68	4.94	2.76	4.24	2.38	1.26	2.55	3.05	2.09
% corrected	18.4	32.3	28.0	37.5	12.0	30.4	28.0	24.4	21.6	31.2
% sem. acceptable	63.2	77.4	46.0	39.6	62.0	52.2	60.0	48.9	57.8	54.5
% sem. unacc. but corr.	7.9	9.7	16.0	29.2	10.0	17.4	22.0	17.8	14.0	18.5
Comprehending percent	71.1	87.1	62.0	68.8	72.0	69.6	82.0	66.7	71.8	73.0
% syn. acceptable	65.8	80.6	62.0	50.0	70.0	69.6	70.0	57.8	67.0	64.5
Proximity means										
graphic	5.71	3.26	5.41	4.67	5.83	5.11	5.88	6.03	5.71	4.77
phonemic	5.67	3.25	4.62	4.33	5.34	4.58	5.74	6.07	5.34	4.56
syntactic	7.12	7.32	7.90	7.00	7.49	7.47	7.63	7.23	7.54	7.26
semantic	6.96	7.29	6.21	6.16	6.58	6.12	6.93	6.00	6.67	6.4

* Kitten Jones

** Sky Dog

The moderate figures, roughly 60-70% same function replacement, support the conclusion that cues are used less effectively in making predictions than in correction.

Downeast Second Grade

Correction is also a major concern of the Maine second graders. They correct a mean percent of 21.6% on Kitten Jones, S44, and 31.2% on Sky Dog, S82 (See Table 5-3). One subject corrects 37.5% on S82. Only about 7.5% of miscues are unsuccessful corrections on both stories.

All but one DE2 subject has lower residual MPHW on S82 than S44. That's also true for non-dialect MPHW. Two subjects each have higher comprehending scores on S44 and S82. As a group, S82 appears to be the easier task with residual MPHW of 2.09 compared to 3.05 for S44. But comprehending scores for the two stories are quite comparable, 71.8% for S44 and 73% for S82.

Two subjects, DE203 and DE202, have much higher non-dialect MPHW 12.99 and 15.15 on S44 than on S82, 8.84 and 7.81, but their residual MPHW are much closer on the two stories and comprehending percents are comparable.

No DE2 reader shows more than 6% dialect miscues.

Semantic acceptability means are similar for the group on the two stories, 57.8% for S44 and 54.5% for S82. But there is considerable range among the subjects on both. On S44 range is from 46% to 63.2%, and on S82 it is from 39.6% to 77.4%. On S44, 35.1% of these miscues are fully acceptable in the passage, with 8.5% acceptable in sentence only, 9% in passage except for other miscues and 4.8% in the sentence except for other miscues. In S82, 25.9% are semantically fully acceptable in the passage, 12.4 in sentence only, and 10.6 and 3.5% in passage and sentence except for other miscues.

Syntactic acceptability for the group is also comparable on the two stories, 67% on S44, 64.5% on S82. The range is from 62 to 70% on S44 and from 50 to 80.6% on S82. Somewhat more than half the miscues on both stories are syntactically acceptable in the passage. But the group has more miscues acceptable in the passage except for other miscues on S44.

On S44, DE2 attempts correction of over 46% of semantically unacceptable miscues but 17% of such miscues involve unsuccessful corrections. They attempt to correct 49% of partially acceptable miscues which includes 10% unsuccessful attempts. Only about 18% of fully acceptable miscues elicit correction attempts and all but one are successful. In reading S82, the group attempts to correct half of all unacceptable miscues. That includes 10.5% unsuccessful attempts. They attempt to correct 63% of partially acceptable miscues including 22%

unsuccessful corrections. They correct 29.5% of semantically acceptable miscues with no unsuccessful attempts. These patterns are unusual because of the high percents of attempts to correct unacceptable miscues as compared to partially acceptable miscues. These second graders, like the fourth graders in the DE group seem to be using correction strategies with great vigor.

They attempt to correct 57% of syntactically unacceptable miscues in S44, including about 18% unsuccessful corrections. They attempt to correct 47% of partially syntactically acceptable miscues, including only 9% unsuccessful attempts. Only 18.7% of syntactically acceptable miscues are corrected, including 5.2% unsuccessful. On S82, the group attempts to correct 50% syntactically unacceptable miscues with only 1 unsuccessful attempt. They attempt to correct 72% of partially acceptable miscues, including 23% unsuccessful attempts. There are attempts to correct 24% of syntactically acceptable miscues, including 3.3% unsuccessful attempts.

The interesting part of these figures is that, though there is a higher rate of correction on S82, the patterns of correction are similar on both stories.

DE2 corrects almost 60% of miscues with little or no phonemic proximity between ER and OR.

Only about 4.5% of all word for word substitutions on either story for these second graders are non-words. That compares to about 7.5% on S44 for all second graders in this study. Their omissions are 11 and 12% on S44 and S82 compared to 11.5% for all second graders on S44.

DE201, Jenny, has an unusual pattern on S82 that is worth closer examination. Jenny's dad digs clams for a living. Her mother is a homemaker. She produces only 32 miscues on the whole story which equates to 5.43 MPH. She corrects a third of these miscues with no unsuccessful corrections and better than 3/4 are semantically acceptable before correction. Her comprehending percent comes up to 87.1% leaving .68 residual MPH, low for the group. Eighty percent of her miscues are syntactically acceptable. In all this, she shows similar patterns on S44, but on that story she is somewhat less efficient and effective in all respects: more miscues, higher MPH, residual MPH of 1.79, comprehending score of 71.1%. She is notably lower in correction, 18.4% and semantic acceptability drops to 63.2%.

Curiously, her graphic and phonemic proximity scores are only 3.26 and 3.25 on S82, but 5.71 and 5.67 on S44.

Jenny starts reading both stories very carefully. Her first miscue occurs on line 9 of S82. Her first miscue on S44 is on line 8. Her only certain dialect miscue is:

burstled
The boy burst into the kitchen.

But Jenny's reading strategies don't really focus on accuracy. Only 19 of her 32 miscues involve word for word substitution on S82. Of these 8 (40%) have little or no similarity between ER and OR, either graphically or phonemically: street/beach, in/at, man's/boy's, the/splash, him/the, it/him, he/and, her/their.

She omits:

He's riding on a duck, ^{we're} and they're going to bump a whale.
(lines 0407, 0408)

Have you asked the police ^{man}? (line 0803) at the ^{seashore}
(line 1101)

The police ^{man} had not seen the dog before. (lines 0901, 0902)

on the ^Clonely beach. (lines 1102, 1103)

to dig in ^{the} sand (line 1201)

he liked ^Cjust being with the boy (lines 1401, 1402)

She inserts:

the boy helped his mother put ^{her} their things
away in suitcases and boxes. (lines 1502, 1503)

She contracts:

^C ^{ac} He's all
He was all alone (line 0604, 0605) (said correctly first, then
miscued and then recorrected)

^C You're ^C We're
You are right (line 1515) We are leaving (line 1602)

She transforms:

He's riding on a duck, ^{we're} and they're going (line 0407)

Summer was almost over, ^{At} at the beach, ^o People were closing...
(lines 0501, 0502)

...who has ^{lost} a dog. (line 0904, 0905)

My dog is much bigger, ^{He} and has a brown ear. (lines 1516, 1517)

She predicts:

we must find out who he belongs to ^{4. and to} ^{3. to give} ^{2. and get} ^{1. and get} and give him back.
(lines 0608, 0609)

The man at the store had not seen the dog before (lines 1001, 1002)

^{man's}
The boy's mother said to him (line 1003)

the boy helped his mother put ^{her} their things away (lines 1502, 1503)

the boy ^(C) ^{him} told the man (lines 1512, 1513)

The dog liked to dig in (the) sand with the boy. (lines 1201, 1202)

(next page) ^(C) ^{the} And splash in the water with the boy (line 1301)

No one has taken the dog. What shall we do with ^(C) ^{it} him? (lines 1602, 1603)

The relative accuracy of Jenny's reading is far less interesting than the ability she shows to make high quality miscues and to keep her focus on meaning. In S44 she has this sequence with multiple miscues:

She suddenly wanted

a drink, ^{she} and ran ^(C) into the house. ^{And} ^{She}
^(C) ^a left the camera ^(C) ^{AC} and ^(C) ^{glasses} on the grass. (lines 0402, 0403, 0404)

The same strategies are at work here with equal effectiveness if not efficiency. She makes 6 miscues in this 17-word sequence, but the net effect is no loss of meaning or even change in meaning, though she has transformed and changed clause dependency while substituting, omitting, correcting.

Jenny produces no non-words on either story. She has more omissions on S44 than S82 and her 25% omission miscues on the word level far exceeds any other DE2 reader on S44. But only one word, marionette, appears to be deliberately omitted (twice).

The one strategy she is not quite using as well as she could in either story is correction. Jenny corrects more than she needs to in S82; only about 1/3 of her corrections come on semantically unacceptable miscues. On S44 she corrects only 1/4 of her semantically unacceptable miscues. Perhaps Jenny is not used to reading material which is not easy for her. Our experience has been that children are often underinstructed, though we have no evidence that that is the case in her Maine school.

Downeast Sixth Grade

As a group DE6 presents a mixed set of statistics on the two stories they read. (See Table 5-4) Non-dialect MPHWS is 9.4 on S53, My Brother Is A Genius, and 10.4 on S84, Two Against The Sea. But residual MPHWS is 2.9 on S53 and 2.4 on S84. Correction is higher on S53, 24.7%, compared to 19%. But semantic acceptability, syntactic acceptability and comprehending percent are all higher on S84. Graphic and phonemic proximity means are comparable and are virtually equivalent on the two stories.

The mixed picture reflects considerable differences among the subjects in DE6. DE6-221 and 230, both with over 13 MPHWS on each story, are comparable on S53. Both have 4.2 residual MPHWS. Their comprehending percents on this story are 68.8 and 70. DE221 corrects less (20.8% compared to 30%) but has higher semantic acceptability (56.3 and 50). Syntactic acceptability is 68.8 and 64%. But DE230 finds S84 only slightly easier with residual MPHWS of 3.9 and comprehending of 74%. He actually corrects less, 22%, and has semantic acceptability of 60% and syntactic of 70%. On the other hand, DE221 is much more efficient on S84 with residual MPHWS of 1.9 comparable to DE223's 1.7 RMPHWS, though the latter has only 6.1 MPHWS on S84. The big difference for 221 is that semantic acceptability jumps to 80%. Even with slightly lower correction on S84 than S53, the subject has 86% comprehending. Syntactic acceptability is 90%.

DE223 has only 1.0 residual MPHWS on S53; he's the only one in the group to have lower MPHWS on S53, though his MPHWS on S84 is only 1.7, also low for the group. His MPHWS (non-dialect) is 3.7 on S53 and 6.1 on S84. This subject does not correct much, 16% on S53 and only 9.8% on S84. Semantic acceptability is comparable, 66% and 68.6% with comprehending percents of 74 and 72.5. Though syntactic acceptability is 76% and 84.3%, the important difference in the patterns of DE223 in the two stories is the low rate of miscues on S53. Otherwise the process looks to be operating similarly.

The fourth subject has comparable residual MPHWS on the two stories, 2.3 and 2.1. Her non-dialect MPHWS is moderate in both cases, 6.4 and 7.6. She corrects the most in the group, 32% on S53, 36% on S84. Semantic acceptability is 46% on S53 and 56% on S84 with comprehending percents of 64% and 72%. As with all subjects, syntactic acceptability is higher on S84, 82% as compared to 74%.

The contrast in how each subject is operating can be seen in their reading of this excerpt from S53.

Table 5-4

DOWNEAST MAINE SIXTH GRADE GROUP STATISTICS

Subject Number Story Number	221		223		225		230		GROUP MEANS	
	53*	84**	53	84	53	84	53	84	53	84
Total Miscues	218	239	92	114	133	180	276	336	179.8	191
Coded Miscues	48	51	52	56	51	52	51	53	50.5	53.0
MPHW	13.5	13.5	3.9	6.7	6.5	7.9	14.3	15.7	9.5	11.0
Dialect Miscues	0	1	2	5	1	2	1	3	1.0	2.3
MPHW	0.0	0.3	0.2	0.6	0.1	0.3	0.3	0.9	0.1	0.5
Percent	0.0	2.0	3.8	8.9	2.0	3.8	2.0	5.7	2.0	5.1
Non-Dialect Miscues	48	50	50	51	50	50	50	50	49.5	50.3
MPHW	13.5	13.3	3.7	6.1	6.4	7.6	14.0	14.8	9.4	10.4
Residual MPHW	4.2	1.9	1.0	1.7	2.3	2.1	4.2	3.9	2.9	2.4
% corrected	20.8	18.0	16.0	9.8	32.0	26.0	30.0	22.0	24.7	19.0
% sem. acceptable	56.3	80.0	66.0	68.6	46.0	56.0	50.0	60.0	54.6	66.2
% sem. unacc. but corr.	12.5	6.0	8.0	3.9	18.0	16.0	20.0	14.0	14.6	10.0
Comprehending percent	68.8	86.0	74.0	72.5	64.0	72.0	70.0	74.0	69.2	76.1
% syn. acceptable	68.8	90.0	76.0	84.3	74.0	82.0	64.0	70.0	70.7	81.6
Proximity means										
graphic	4.8	5.4	5.6	5.1	6.1	5.7	5.3	5.7	5.4	5.5
phonemic	4.5	6.0	6.0	5.1	5.4	5.7	4.9	5.3	5.2	5.5
syntactic	7.2	7.5	6.9	7.4	7.8	7.9	7.1	7.8	7.2	7.7
semantic	6.3	7.2	6.9	6.7	6.4	6.9	6.7	7.1	6.6	7.0

* My Brother Is A Genius

** Two Against The Sea

DE223, Hubert

0310 The next day at noon, as soon as class^es let out for lunch,
0311 I called the local television station. It's just three blocks
0312 from the school. "Yes, Miss, it's very important," I said
0313 to the lady on the telephone. "An important project
0314 depends on it."

0315 "All right," she said after a pause, "Mr. Barnaby will see
0316 you if you [©]come over right away."

0317 Mr. Barnaby was a very busy man. As the lady led me
0318 ^{towards} toward his office, she said, "Mr. Barnaby [©]i- is a very busy
0319 man." I sat in a large leather chair in front of him. "I'm
0320 a very busy man," he said, hanging up the two telephones
0321 ^{into} in[©] which he'd been talking. "My time is very valuable.
0322 What can I do for you?"

0323 I cleared my throat and said, "I want to [©]s-sell my little
0324 brother. That is - I mean I think just about everybody
0325 likes babies."

0326 "How much do you want for. . . Oh, of course
0327 everybody likes babies!" Mr. Barnaby said.
0328 "I have an idea for a TV program," I said.

DE225, Deanna

0310 The next day at noon, as soon as classes let ^(C)out for lunch,

0311 I called the local television station. It's just three blocks

0312 from the school. ^(C)"Yes, Miss, ^{it}it's very important," I said

0313 ^(C)to the lady on the telephone. "An important ^{subject}project

0314 depends on it."

0315 "All right," she said after a pause, "Mr. ^(UC)Barnaby will see

0316 you if you come over right away."

0317 Mr. ^(C)Barn- the ^(C)bizzar ^(C)ba-
Barnaby was a very busy man. As the lady led me

0318 toward his office, she said, "Mr. ^(C)Barn- Barnaby is a very busy

0319 man." ^(C)I ^{s-}sat in a large leather chair in front of him. "I'm

0320 a very busy man," he said, ^{handing}hanging up the two telephones

0321 ^(C)into which he'd been talking. "My time is very valuable.

0322 What can I do for you?"

0323 I ^{cleaned}cleared my throat and said, "I want to ^(C)te-
say ^{sell}sell my little

0324 brother. ^(C)What That is - I mean I think just about everybody

0325 likes babies."

0326 "How much do you want for. . . Oh, of course

0327 everybody likes babies!" Mr. Barnaby said.

0328 "I have an idea for ^(C)th-
a TV program," I said.

DE221, Denny

0310 The next day at noon, as ^{UC} ^{2. soon as class} soon as classes let out ^C ^{of} for lunch,

0311 I called the ^{location} local television station. It's just three blocks

0312 from the school. "Yes, Miss, it's very important," I said

0313 to the lady on the telephone. "An ^{very} [^] important project

0314 depends on it."

0315 "All right," she said after a pause, ^{Miss M- Barney} "Mr. Barnaby will see

0316 you ^C ^{CA-} if you come over right away."

0317 ^{Miss Barney} Mr. Barnaby was a very busy man. As the lady ^C ^{let} led me

0318 toward his office, she said, "Mr. Barnaby, ^{Barley it's} [^] is a very busy

0319 man." ^{He sits} I sat in a large leather chair in front of him. "I'm

0320 a very busy man," he said, hanging up the two telephones

0321 ^C into which he'd been talking. "My time is very valuable.

0322 What can I do for you?"

0323 I cleared my throat and said, "I ^{UC} ^{wanted} ^{would} ^{see} want to sell my little

0324 brother. ^{UC} ^{what} ^{Th-} That is - I mean I think just about everybody

0325 likes babies."

0326 "How much do you want for. . . Oh, of course

0327 everybody likes babies!" ^{Bailey} Mr. Barnaby said.

0328 ^{television} "I have an idea for a TV program," I said.

DE230, Michael

0310 The next day at noon, as soon as classes let out for lunch,

0311 I called the local television station. It's just three blocks

0312 from the school. "Yes, ^(RS)Miss, ^(C)it's very important," I said

0313 to the lady on the telephone. "An important project

0314 depends on it."

0315 "All right," she said after a pause, "Mr. ^(UC)Bandle ^(C)Ber-
Barnaby will see

0316 you, ^(C)if you ^(C)come over right away."

0317 ^(C)Mrs. Ban Mr. Barnaby was a very busy man. As the lady led me

0318 towards ^(E)h- he ^(C)he ^(UC)M- ^(C)Ban-
toward ^(C)his office, she said, "Mr. ^(C)Barnaby ^(C)is a very busy

0319 man." I sat in a large ^(C)lounge ^(RS)chair in ^(C)front of him. "I'm

0320 a very busy man," he said, hanging up ^(C)the two telephones

0321 into which ^(C)he ^(C)he'd been talking. "My time is very valuable.

0322 ^(I)What can I do for you?"

0323 I ^(C)cleaned ^(C)cleared my throat and said, "I want to ^(C)sell my little

0324 brother. ^(C)That is - I mean I think just about ^(C)enough

0325 like ^(C)babies."

0326 ^(RS)"How much do ^(C)you want for ^(C)him. Oh, of course

0327 anybody ^(C)everybody likes babies." ^(C)Mrs. Bain ^(C)Mr. Barnaby said.

0328 "I have an idea for a TV program," I said.

DE223, Hubert, has only three miscues in this passage. All are fully acceptable semantically and syntactically in the story. He also has three corrected partials; in each case he caught himself at the very beginning of the miscue. Interestingly, at least one other subject miscues at each point where he has a partial. For example, on line 323, all four subjects seem surprised at the author's choice of the verb sell. Two produce partials and two produce miscues. Hubert's miscues are also duplicated by at least one other subject. Denny says class for classes, Michael also says towards for toward. Deanna says in for into, Denny omits into. So what Hubert is doing fits within what the other subjects are doing. He doesn't produce different miscues, he produces fewer miscues and those he produces have little or no effect on his comprehension.

DE225, Deanna, shows more miscue activity. She produces seven corrected partials. In four cases, other subjects in the group miscue at those places. She has five uncorrected miscues. All of them are both semantically and syntactically fully acceptable in the passage. All other miscues are successfully corrected except the name Barnaby at its first occurrence, but that's corrected after partials on the second and third occurrences and read correctly on the fourth. Deanna is doing more than Hubert, but less than the other two subjects in her group. But little that she's done could be called different. Her substitution of subject for project with a lot of preceding discussion about school is not surprising as is what she does with handing for hanging. She produces and corrects one non-word substitution, \$bizzer for busy.

Denny, DE221, has still more happening. He seems to be doing a lot of anticipating and self monitoring. So on line 310 he goes from "as soon as classes (let out)" to "as class" and then corrects. He substitutes of for for and also corrects. On line 313, probably influenced by what he sees on the line above, he inserts very before important. Peripheral field may also be involved in his substitution of location for local in local television station. He's added omission and insertion to what the others have done, but still within the processing of language for meaning. Denny says Miss for Mr. at the point where Mr. Barnaby is appearing the first time in the context of a conversation with "the lady on the telephone". He does it again in sentence 317, which becomes semantically unacceptable, "Miss Barney was a very busy man". That's not corrected, but subsequent occurrences are correct. For the name he goes from Barnaby to Barney and then Barley and finally Bailey. Throughout the rest of the story and in the retelling he remains Mr. Bailey. But in the retelling he can tell us appropriately that Mr. Bailey was "quite busy" and "he got angry quite easily". In a few cases his miscues are unacceptable or change the meaning. Some are not successfully corrected. But Denny apparently is able to put the pieces back together as he goes along. He has the highest retelling score - 72. He knows that the plot is "a older brother was trying to find a school project and accidentally got his little brother involved". His theme is "Don't count your chickens before they hatch".

DE230, Michael, shows a similar pattern and quantity of miscue activity. He omits two words in line 316, transforming from a conditional clause to a command only slightly modifying the meaning. He goes from Mr. to Mrs., eventually correcting. What he's doing like the others is in the context of an evident concern for meaning. He is clearly dealing, not simply with words, but language. On line 326, he even supplies a word the author has left out. Michael has a retelling score of 50, just below Hubert's 52.

Though there are differences that show in both the miscues and the statistical analyses, it is clear that all the readers are getting involved with language to get to meaning. They vary in efficiency and effectiveness and that's reflected in statistical differences.

Hubert, DE223, has the highest percent of peripheral field involvement. He has almost 30% on S53 and 24% in S84. That's considerably more than any other of the DE6 subjects. He also has the highest proportion of miscues on function words in both stories, lowest on verbs in both stories and on nouns in S53. He has the highest percent of miscues in both stories that are not on the word level. He has the highest percents, 20 and 13.7, that involve intonation. In reading S53, 18% of his miscues are not on the word level, quite a high proportion compared to his peers.

Deanna, DE225, produces the highest proportion of non-word substitutions in both stories, 17.3 and 15.1%; that's a lot more than any other DE6 reader.

Michael, DE230, has 15% omissions on S53, but none on S84 in the coded portion. A few of his omissions seem deliberate. He starts to say education, but then says "whatever that word is" and goes on. He does that with certain, absolutely and advertise, too. But words like my, but, things, fall, little, very are not likely to be deliberate omissions. Rather, they come about during complex processing of written language for meaning.

The DE6 group once again demonstrates the diversity within unity which is reading at any level.

The Appalachian Group

Many have heard of Hillbillies, but few know much about Appalachia. They aren't different enough to be romanticized like the Indians, nor angry enough to be feared like the Blacks. Still there are eloquent lawyers like Henry Caudill (Night comes to the Cumberlands) and local poets and authors of fiction like Wendell Berry and Harriet Arnow, to help us understand the mountain people of South Eastern United States.

The Appalachian white subjects we used for this study come from Tazewell, Tennessee, a town nestled in the northeast of Tennessee known as the Cumberland Gap. The population is largely white, though there are Blacks in Appalachia. We used only white subjects in this study since we could not confirm that dialect would be the same. Both our Mississippi and Tennessee subjects live in Claybourne Counties within their own states. In Tazewell, unemployment is high and a high percent of the population works at various unskilled jobs. The teacher's aide who worked with us throughout our week in Tazewell said that her unemployment pattern is typical. She is a teacher's aide, earning minimum wage. Her husband is presently employed in a tire store in a nearby small town. He often looks for work outside of Tazewell. They have a few acres of t'bacer (tobacco), but they have lost their crop often to "rot".

The particular children were selected based on the same two criteria used for all our dialect populations. The subjects are considered average readers within their classes, using teacher judgment, and their parents are native to the area. Most of our subjects could tell us that their grandparents were also native to the area. The last names of many of our subjects have been common to the Tazewell area since the 1700's.

Even though Appalachia stretches from lower New York and the coal mines of Western Pennsylvania to the hills of northern Alabama, it can be considered a single entity.

"A common geographic and national origin before migration to Appalachia, plus the effect of similar ecological factors throughout the area of settlement...led to the maintenance of a rather uniform culture." (Weller, 1966)

The mountains and valleys of Appalachia were settled more than two hundred years ago by the Scotch-Irish, who spoke the English of the Scottish Lowlands, and the North of England. To some extent people from southeastern England settled here, too.

The early settlements were not completely isolated from the outside world, although the mountainous terrain formed barriers around the settlements which effectively served to insulate them from extensive contact with larger communities of the early American settlement. In the relatively isolated Appalachian communities developed a special

kind of American whose language usage has a configuration different from the large community and is shared by people living in that region. This is referred to as Appalachian English or dialect. Contemporary Appalachian English can be distinguished from other English dialects by phonological, syntactic and semantic features. The major studies which have looked at these features in contemporary period include Hackenberg's 1972, Wolfram's 1975 and Blanton's 1974. The only other recent study of this area's speech, Davis, 1971, is principally phonological. Studies done in the 1930's and 1940's appear aimed at finding as many Elizabethan features or rustic sayings as possible, but they weren't systematic. The authors of these studies, many of whom were summer visitors, made predictions that the dialects here were fast disappearing. Now, thirty to forty years later, the dialects haven't yet disappeared, but they are approaching the mid-land dialects spoken in the surrounding towns and cities. The older people have many more of the distinctly Appalachian features than do their offspring, although a number of our subjects spoke of living with mammaw (grandmother) and pappaw (grandfather). One sixth grade subject, when responding to whether the sixth grade culturally relevant story could have taken place near Tazewell, said "about eight mile from here, it might could."

Studies examining the oral language of Appalachian speakers have scientifically described the features through the collection of speech in various natural settings. Studies evaluating the reading and other cognitive abilities of Appalachians have tended, for the most part, to use short selections or standardized test scores. Such data yield a negative view of the learning capabilities of these mountain people. V. Skinner (1967) states that "Appalachian and illiteracy are two virtually synonymous terms." Using a variety of tests, Hooper and Marshall (1968) conclude that "the children's performance on a global index such as the Stanford-Binet Intelligence Test is generally adequate." They believe that the majority of their clearest deficits tend to center upon verbal tasks or those problem settings which demand symbolic representation (p. 25). According to a feasibility study on the educational needs involving Appalachian areas, reading comprehension received the highest number of choices in a ranking of the most serious problems facing children. Almost 1,000 administrators and teachers from Appalachia were involved in the study, 153 coming from the state of Tennessee (Campbell, 1971, p. 31). In the same report, a conclusion is made about the pupils' needs in the cognitive-psychomotor area (p. 54-57). After initiating this discussion with the statement that "not enough hard data currently is available", this section concludes with "the foregoing discussion seems to indicate that in Appalachia, critical educational needs in the cognitive-psychomotor area are reading, written expression, listening comprehension and career skills."

Dialect features which are found in the previously mentioned studies which have relationship to our research follow. The examples are either from our own research, Hackenburg (1972) or Wolfram (1975).

Phonological Features

There are features related to the reduction of consonant clusters which some have argued are phonologically influenced, even though they occur in relationship with grammatical features (ed endings on verbs, s endings on plurals, third person singular and possessives.) We recognize the issues in this controversy, but will discuss these features in the section related to syntactic features.

Some of the phonological features listed by most students of Appalachian dialect include vowel differences such as shifts, raising of vowels, diphthongization and the change of vowels preceeding an r. Intrinsic h and final t are other common features. These may depend on stress patterns. Our teacher's aide produced the following sentence: "It's find and hits very good but it's not for us. Examples of the intrinsic final t include: I did it oncet maybe twicet. R and l are often omitted in some medial and final positions, although with final ow or o words, er can replace them - such as holler for hollow or 'baccor for tobacco. Initial syllables which are unstressed can be deleted, such as 'lowance (allowance) and 'spect (expect).

In addition to the oral contractions found in many dialects of English such as with'm, Appalachian speakers contract was with pronouns such as: well, oncet I'as with my daddy's brother. In addition there is a phenomenon Wolfram calls a w deletion with one in unstressed positions or modals. Examples include:

...whopped me a good'un with a paddle
...jist throw another'n right in on top of that'n.
...that'd be the biggest sin.

When a fricative preceeds a nasal, there seems to be a shift. For example, if a z preceeds a nasal as in wasn't, it could be pronounced as if the z is omitted and a d sound replaces the t (wɔdn).

Syntactic Features

There is some question about the absence of the present tense copula in certain situations, notably in the third person.

Example: He fast in everything he do. (Wolfram, 1975)

Hackenberg, in his study of a white non-standard West Virginia dialect, didn't note any copula deletion. Wolfram found copula deletion in his study of another white non-standard West Virginia dialect.

Example: They friends, they brothers and sisters.

In the reading of Black English speakers copula is deleted although in oral retellings there is evidence of copula deletions. Occasionally, we discovered copula deletions in the reading of the Appalachian subjects like the sixth grader who reads in S76:

Example: Then I remembered I'd heard if you bleeding bad, you shouldn't run, it makes your heart pump that much more blood. (lines 1014, 1015, 1016)

Here the deletion is part of the present continuous. There could be several non-dialectal explanations for this. However, this feature is insignificant in our Appalachian readers and speakers.

Hackenberg did note non-concordance of the present tense copula with a plural subject.

Example: These ones here is all union.

Interestingly enough, he found concord here with pronoun subjects, but 52% non-concordance with non-pronoun subjects. This was also the case with present tense verbs other than the copula where there was only non-concordance with non-pronoun subjects (32%) in sentences like the following.

Example: These packers keeps them for quite a while.

In a study by Blanton on white speakers in Kentucky, she found the opposite to be true. That is, she found non-agreement with pronoun subjects. Part of this difference may be due to classification. Hackenberg classified existential there as a non-pronoun.

One example in one of our sixth grade subject's reading of S53 shows non-agreement in present tense copula.

Example: There's a lot of things babies use. (lines 0410,0411)

In one sixth grade subject's reading of S76 and speaking, non-concordance of the past tense form of the copula occurred when there was a plural subject and a singular form of the copula.

Example: ...I saw his chest and belly was ripped bad. (S76, line 0918)

Our teacher's aide indicated such concordance in her speech at least twice, but in both cases with plural subjects.

Examples: They wasn't but six . . .

Some of them has

When was is used with plural subjects, in the majority of cases these uses occurred after existential there. This occurred in reading S53, as well as in speech.

Example: There was glaring spotlights...(S53, line 0815)

Hackenberg also found existential there to be a constraint here. In his data, it preceded 55% of the non-concordances with was.

Hackenberg concluded that there is a movement of leveling taking place in Appalachian English. This leveling would eventually do away with inflection for person and number, and leave verbs inflected for tense only. In the past-tense, the invariant form would be was.

Hackenberg also noted that of the dialect features he investigated, non-concordance of plural subjects with the past tense of the copula, correlated the best with social stratifications based on education and occupation. When he correlated this syntactic variable with age, he found that the higher the age, the more non-concordance.

There is evidence of non-standard past tense forms of some irregular verbs. The most common of these is with the verb come. This occurs in both reading and speaking.

Example: He cried out and come to the bank, and they were still in there for a while.

Other non-standard past tense forms include become for became, run for ran, creep for crept, brung for brought, drug for dragged, sung for sang, knowed for knew, throwed for threw, helt for held, learnt for learned, lent for leaned.

These can be divided into four main groups. In the first group, the Appalachian past form is the same as the present form (come, become, run). If these were considered the past participles, here the same as the present form, then sung would also fit into this group. Another group has past tense forms different from its present or past participle forms in standard English (brung, drug). A third group uses the general rule of -ed for past tense formation, only it applied this to verbs which are irregular in standard English (throwed/threw, knowed/knew). The last group substitutes a t for the SE d (helt/held, learnt/learned).

Both Wolfram and Hackenberg mention these past forms. The use of these forms in our research seem to be more frequent in free speech than in the reading. There might be a semantic tendency to use come when the action is somewhat dramatic. Contrast one subject's use of come/came in retelling S53, from the standard story Cat Fight.

Example: And then he came home and talked to his parents for awhile.

The ordinary use of came, with came home, is contrasted with the use of come.

Example: Just as the big cat leap, Bristle Face come from somewhere.

Or perhaps, the story itself triggered the different uses. It was in the retelling of the story that had an Appalachian setting that one sixth grade subject produced come for SE came, 100% of the time.

Still, the numbers are too small to make any generalization other than that come for came, like the other forms, is variable in subjects' dialects.

The absence of -ed on some past tense verbs is not mentioned by Hackenberg. Wolfram noted a historical present with the first person only.

Example: I says OK, then, keep a-going, and he kept going.

Since none of the other studies noted the absence of -ed, we were surprised to find it. But this lack of corroboration made us even more careful to check the possibility of purely phonological influence.

Examples: When I turn around, there was bubbles coming to the surface. (lines 0809, 0810)
When I moved the first muscle, the panther squirm. (lines 0709, 0710)

Careful listening to the tapes, both of the reading and retelling, reveal many occurrences where the stop was not realized when a nasal plus a stop occurs in word final position (ground-groun, kind-kin, around-aroun). This indicates that -ed absences may be phonologically determined, and not a syntactic feature of Appalachian dialect. Data from the tapes also reveals fact becoming fac, and act as ac, to indicate phonological dialect only.

The final group of -ed absences were with verbs ending in l. (Once fields became fiels.) One verb, yell, occurred several times without the -ed. Moving from strictly phonological concerns to the actual use of the verb, there is another possible explanation of yell where SE would use yelled.

The yell was used as a dialogue carrier in S53.

Examples: I opened the dictionary and picked out a word that sounded good. (lines 0201, 0202)
"\$Philoscopic," I yell. (line 0202)
"Mom, Dad," I yell. (line 0721)

This could be a sign of a different narrative style, related to a historical present. In support of a more immediate narrative style is the following exchange:

Researcher: Why did the boy want to know where a dictionary was?

AP 6: Well, see, he start calling off words, when he reads the S's, hit, it makes him calm and he goes to sleep, Andrew goes to sleep.

What might at first glance be considered an absence of -ed in certain past tense verbs, may be explained partly as a different narrative style, but more so as consonant cluster simplification. In his study of a Kentucky dialect, Davis (1971) found consonant cluster simplifi-

cation to occur 40% in word final position before words beginning with consonants, and 20% in this position before words beginning with vowels.

All dialect researchers report that in some verb forms ending with ing, speakers precede the verb with a. Our teacher's aide said "No one's a-buying them." Hackenberg notes that this may be related to the old English "ge" which was resolved as /a/ + verb +ing. In many of these forms a verb or a form of to be proceeds the a + verb + ing. There is also a tendency to use to prior to some ing forms. One sixth grader read, I went to reading the words out loud for I went on reading the words aloud (S53 line 0221). These forms also tend to be preceded by another verb.

There seems to be activity within Appalachian dialect concerning the past presented as participle forms.

Examples: They'd went to school together
She had took the doll

In addition, seem and done are used where saw or did might be used in SE. However, these forms may involve a deletion of have or had prior to the verb.

There seems to be a specialized use of liketa (like to) and sposta (supposed to). Wolfram reports examples:

We liketa never found him.
We was sposeta went to the ball game.

These may be related to the double modals also reported by Wolfram.

Examples: He musta (must've) didn't hear me.
Hit might could happen.

There are three negative features which deserve mention.

a. Negative concord

Example:

Well, my sight wasn't on the cat no longer that I
took it off and cut a glance at the rock. (lines 0609, 0610)

b. Negative inversion

Example:

Didn't nobody get hurt or nothing.

c. The use of ain't.

Absence of plural and possessive markers have been noted in certain settings. The plural absence seems to be involved when the noun phrase includes redundant plural cues or the word is related to weights or measures.

Examples: The boy ran and was back in a few second.
He gazed at a rock lying about four foot under him.

Possessive markers are omitted inconsistently in both speaking and oral reading.

Double nouns seem to occur in our own retelling data, but are not mentioned in other studies.

Examples: He gave up his allowance money.
He hurried out across the pasture fields.

Wolfram reports certain intensifiers which may relate to the double nouns in terms of use of redundant features.

Examples: Take a big old cub of tobacco.
He feels right smart foolish.

There are other interesting forms:

1. Adverbial But:

Example: He don't come to see me but oncet a month.

2. Adverb Placement:

Examples: Everwhat the case may be
He was picking me ever which way.

3. Demonstratives:

Example: This here one

4. Reflexives:

Examples: hisself; theirself

5. Personal Dative:

Examples: You pick you out a good tree.
We had us a cabin.

An Appalachian Fourth Grader

We focus, in the Appalachian group, on George (AP414). George's parents left school after eighth grade. His father builds furniture in the barn-factory he's set up. Sometimes his mother sews material for the furniture.

George was almost ten at the time of this reading. A year earlier his IQ score was 82. His reading score was 2.9 at the end of the third grade. He's the youngest of four children.

George likes to ride a mini-bike on mountain trails.

Here's George's retelling of S51, Freddie Miller, Scientist.

Subject: Oh, s- you want me to start at the first?

Researcher: Yep. Start at the first.

S: I 'member ah...ah Freddy got...got ah Elizabeth's doll and it turned and tried an experiment and turned it green and ah...and then his ah mother said, You act like ahm... Unc-, Uncle August and ah see...ah (whispered)...(long pause) And then ah 'lizabeth, y- no his mother said ah, ah, You are going to have to s- ah give half of your allowance to Elizabeth and ah...(long pause). And then he fixed the clock and then his father said the next morning, "After all, that clock works." And then he fi-- ah he went to fix the clock again and made it ah so loud it sound like a fire engine, and it ah...rung at three o'clock in the morning and ah...mmm...then he ma- made a...then Elizabeth got caught in the door and she cou'n't get out and he made her a flashlight and then, then she wutn't afraid. And then he ah went and got mother...and then fa- when father come home, she run to the door and m- and pulled him in and ah, he come in the kitchen and then his brother was working in the kitchen with his chess set and his mo- and then, his mother was cooking breakfast and then they told him the whole story. So I don't know.

R: What else?

S: Eh...Then, yeh, they s- uh said un, "You act like uh your uh Uncle...uh...Uncle..." I don't remember that uncle was. And then he said, "No", and then they said, "Uncle uh August and he said "No," and then Uncle Os-Ostridge and Uncle...uh, uh...(long pause) That's all the uncles I can remember. And then he said. Uh "No, I act like you - his father."

R: OK. All right. Let me just ah see. Did you like the story?

S: Yeh.

R: You remembered a lot of it too, didn't you?

S: Um. What I could.

R: You did pretty well. Ah, let's see. Tell me about all the uncles. Tell me, what did the uncles have to do with the story?

S: Well...(long pause)

R: Who was saying, "You act like your uncle so and so, and you act like your uncle so and so?"

S: (interrupting) His uh mother.

R: Why'd she do that?

S: He just act like them, and she said he act like them.

R: Do you think he liked that?

S: I don't believe he did.

R: Why don't you think so?

S: Um, he always acted nice. When they say that. He'd say "No, he didn't act like them."

R: Who do you want, who did he think he acted like?

S: His father.

R: Did he think that himself?

S: You mean the boy?

R: Yeh.

S: Yeh.

R: How do you know that?

S: He said it in the book.

R: OK. Ah, what was the boy's name?

S: Freddie, that's what I say it was.

R: Freddie? OK. And who else was in the story besides the boy?

S: Mmm...Mr. Miller and Mrs. Miller and 'lizabeth.

R: OK. And who is Mr. Miller?

S: Uh, Mrs. Miller's husband.

R: OK. What did he have to do with Freddy?

S: With who?

R: With Freddie. Freddie. Freddie. With the boy in the story.

S: Oh...(long pause) He was mmm-one. I say it was Freddie, you mean it's uh Freddie?

R: Um-hm (affirmative)

S: (Laughs) Ah, he was the one who ah was making thangs and doing esperiments and all that.

R: Who was doing that?

S: Freddie.

R: OK. And ah, who was Mr. Miller?

S: Uh, Mrs. Miller's wife.

R: OK.

S: I mean husband. (Laughs)

R: OK. What did he have to do with Freddie? Did he have something to do with Freddie?

S: He was his father.

R: OK. And who was Mrs. Miller?

S: Uh. Freddie's mother.

R: OK. What did Mrs. Miller - What was she like in the story?

S: Um...

R: Think she was like other mothers?

S: Yeh.

R: How?

S: Well, saying they act like 'em, and...

R: Do you think mothers do that?

S: Yeh.

R: Always saying you act like other people? Your mother ever tell you that?

S: Yeh.

R: Who does she say you act like?

S: Uh...(long pause) I just can't think of anybody.

R: You can't? OK. So ah she just acted...What else-- Tell me, what else about the mother? What else can you tell me about the mother?

S: Well, let's see...

R: What else did she have to do with the story?

S: She made uh Freddie pay uh 'lizabeth uh half of his allowance.

R: Why?

S: Because he ruined uh her doll.

R: OK. And ah tell me about Elizabeth.

S: Um...

R: Who was she?

S: She was uh Freddie's sister.

R: OK. How old was she?

S: I don't believe it told hit.

R: OK. What do you - how - do you think she was older than he or younger than he was, or what?

S: Younger.

R: How do you know?

S: Um, she was the one who was getting all the tr-, getting in all the trouble. She had to be littler or she wouldn't have hollered for uh-uh Freddie.

R: (interrupting) Who was getting into trouble?

S: 'lizabeth.

R: She was getting into trouble, so she had to be little? OK.

S: And she, and cause uh she was hollering uh for Freddie to come and help her when she got in the closet - ever what it was.

R: How'd she get in the closet?

S: She g- uh went in the door and hit slammed shut.

R: OK. And then...

S: (interrupting) The win-, the wind blew it.

R: The wind blew it shut? And then what happened?

S: And then she cried for Freddie.

R: OK, and then what happened?

S: Uh, Freddie come and said, "I'll go get mother," and then she said it -- said, "Don't leave me," and then she f- he fixed them - fixed her a flashlight and put it down the threshe- ever what it is.

R: The what?

S: The threshe- ever what it is.

R: What is it? Even if you don't know the w-

S: A window.

R: A window. Where is the window?

S: Uh, on th- on the back of the clo- closet?

R: How do you think he could get to the back of the closet if the door was closed?

S: I don't know. Probably on the front of the door.

R: Think it was a window on the front? Why couldn't she reach it?

S: She was too little.

R: How could he reach it?

S: He got him a, a, a kitchen uh ladder, I believe it was, and gave it to her and told her to get it by the ruler and hold it.

R: Just wait a minute because we're going to change tapes. We're going to another tape to help hear you finish the story.

R: Now, George (AP 414) is going to tell us some more about Freddie Miller. And you were going to tell us how he made that bed - how he made that flashlight. Remember?

S: OK. He got um a ruler, and he have uh - then he g- a s- got a battery. He found a battery on the table and he put it on the ruler, then he had a battery in his uh - chess set, and he got hit and put it on it. And then he got him a bu'b and ya- uh put it there, then he uh hooked the wires to it. That's all. I believe that's all he did to it.

R: OK. And how c-, how could the uh flashlight do all that? How does that -

S: I don't know.

R: Now you said he got a, a, a battery from where?

S: Out of his chess set, ever where he had them tools.

R: Oh, he had tools in something called, something like a chess set?

S: Yeh.

R: What do you think is in there? In the chess set?

S: Ah, tools, stuff.

R: What kind of - what else besides tools?

S: Uh...He had a battery in there.

R: OK.

S: Uh.

R: Anything else he had in there?

S: That's all I remember.

R: What did he do with his set?

S: He ma-- he fixed the clock and he uh made stuff. He was wanting to be a

R: (interrupting) Why did he do all those things?

S: He wanted to be a scientist.

R: He wanted to be what?

S: A scientist.

R: OK. And so he made all those things? OK. And uh when he made all these things, was - were they - did they all work?

S: Yeh.

R: Everything worked good?

S: Not good.

R: Not good?

S: Cause his uh mother open the frigerator and not ah, a smell was in it.

R: What was the smell from?

S: Uh, some stuff he had made.

R: Mhm. What else? Tell me about the clock. Tell me more about the clock.

S: How he made it? How he fi-- ah

R: (interrupting) You told me about the clock going off and sounding like a fire engine or something like that?

S: Oh. Un and uh. Hit woke him up at three o'clock in the morning. And when he come, come to the uh breakfast table he told them that uh, uh he heard the school bell ringing. Hit ringed and ringed and uh...That's all I remember.

R: Was it the school bell ringing?

S: No.

R: What was it?

S: (interrupting) It was the clock he had made.

R: And how come he thought it was the school bell?

S: Hit sounded so loud.

R: Mhm. And did it go off when it was supposed to go off?

S: No.

R: When did it --

S: (interrupting) It went off at three o'clock w-when it was supposed to went off at seven o'clock.

R: How come you think it did that?

S: He uh set it at the wrong time.

R: Uh-huh. OK. And th- what happened? What did they say?

S: Uh...Said it sounded like a...fire engine?

R: Umhm. OK. Uh, what do you think the most important - what do y- if somebody asked you to say what the most important thing of the story was, what would you say it was?

S: I'd say uh...the part uh where he uh made the...uh one with the battery and the bu'b and all that.

R: Why was that the most important?

S: Mm...it'd be more like a scientist.

R: Why?

S: Because he invented sump'm.

R: Mhm. Did he - Do you think he made that up all by himself?

S: Yeh.

R: OK. And uh...uh...what was the story trying to teach you? What ideas were there in the story that were trying to teach you something?

S: Uh...to see how good I could read.

R: Umhm. Anything else? Do you think you read good? Why not?

S: Just I'm una make a "B" on reading.

R: OK. That's not so bad. And what else was the story trying to teach you? Was there a lesson in the story or a moral in the story?

S: Um...that - I believe there is a lesson.

R: What's that?

S: Not to get other people's things and uh mess with 'em cause if you tear them up you'll probably have to pay.

R: OK. And uh...Do you think that uh Mrs. Miller was happy with Freddie?

S: Yeh.

R: Why?

S: Because he uh, uh fix the clock uh - I believe he fi-- He fixed it oncet. She was happy with him cause he uh got uh 'lizabeth out of the closet.

R: OK.

S: And gave her a light.

R: What?

S: And gave her a light -- a flashlight.

R: Gave her a light -- a flashlight. And you think - what about - what do you think - how do you think Mr. Miller felt?

S: Um, happy.

R: Why?

S: Because he had uh helped 'lizabeth.

F: OK. And uh do you think that Mrs. Miller w- would be saying that he acts like his uncles anymore?

S: No.

R: Why not?

S: Because uh...he helped 'lizabeth. That's all I can think of.

R: OK, and what did that mean if he a - he helped Elizabeth?

S: Probably his uncle, (laughs) wouldn't of did it.

R: Ah, you think that - And who does he act like then?

S: You mean, who does he li-- act like when he don't help her?

- R: When he helps her.
- S: His father.
- R: OK. You think that's - and you think that's - you think that's good? OK. Anything else you want to tell me about the story? Anything else you remember now that you didn't remember before?
- S: Ah...I don't remember nothing else.
- R: You remembered an awful lot of the story. Where did the story take place?
- S: Ah...(long pause) It takes place in the book (laughs).
- R: In the book? Right. Do you have any idea? Do you think it could take place around Tas-- New Taswell?
- S: Yeh.
- R: Yeh? Do you think - you know any boys like that?
- S: Uh...yeh.
- R: Who?
- S: Mitchell Edwards in my room. He's always making sump'm.
- R: Does he come out good with it?

In retelling both S51 and S74, Old Ben Bailey Meets His Match, George uses several words with deleted prefixes: 'bout, 'fore, 'member, 'lizabeth, 'frigerator, 'cause.

Other phonological variations produce: cou'n't (couldn't), wotn't (wasn't), hit (it), he's (he was), wunst (once), evertime (everytime), sweet taters and sweet p'taters (potatoes), I'monna (I'm going to).

He uses ain't twice: that ain't true, I ain't for sure about that.

There are four double negatives in George's retellings: don't remember nothing else, not to never play tricks, to not never leave your dog, I don't believe he did nothing.

He deletes past ed in:

It sound like, he act like them, he fix the clock.

He also uses these past tenses:

It rung at 3	When father come home
Hit teached Old Ben a lesson	
She run to the door	he come in the kitchen
he heared the bell	Freddie come
hit ringed and ringed	he seen the munk

He also has these verb uses:

It was supposed to went off at 7
 wouldn't've did it
 When he don't help her
 he was a-grazing
 he wouldn't've rode
 There are people that sells foxhounds

George uses more past perfects than speakers of other dialects:

some stuff he had made
 teacher had made a rule

Other idioms and vocabulary illustrate George's dialect:

Should I start at the first?
 He went to fix the clock.
 I don't believe he did.
 She hollered for Freddie.
 everwhat it was (whatever)
 everywhere he had them tools (wherever)
 he got him a ladder
 he got him a bu'b
 he fixed her a flashlight
 to sell it somewheres

In his reading, George has only 5.7% dialect on each story, although another 12% in each story involve either secondary dialect or are doubtful dialect. He deletes a possessive, reads heard for heard, happen/ happened, come/ came, love/ loved, had grew up for had grown up, 'friger- ator for refrigerator and sigheded for sighed.

He overstresses some prefixes: about, alone. His most frequent examples of dialect are phonological: adder all/after all, aphabet/ alphabet; lot bu'b/light bulb; wust/worst; kep/kept; lef/left; taters/ potatoes; coun't/couldn't; wunst/once.

Clearly George shows far less influence of dialect in his reading than his retelling (see Table 5-5), though the dialect he does show in reading matches his oral use, except for his over stressing about and alone and supercorrecting sigheded.

He reads mothers for manners and mutters: "No, that ain't it."

In S51 he comments after reading Uncle August, "That word's a month".

In retelling S74, George calls the Mule a \$Muk. He never reads mule appropriately in the story. In the retelling this conversation occurs:

Researcher: What did he ride home on?

Subject: The muk.

R: What's that?

S: I don't know.

R: What's it like?

S: Might be sort of like a cow.

R: Why do you think that?

S: Well, it had to be bigger'n him 'fore he could ride it. And it had to have four legs 'fore he could ride it. So it might've been a cow. No it wouldn't've been a cow. I just said sump'n like a cow.

R: Anything else?

S: I don't know. They ride, uh, wil' bulls in the rodeo.

R: You think this was a wild bull?

S: Well he wouldn't've rode it if it had been wil'.

George's insight is illustrative as is his cautious risk-taking. He knows when he doesn't know something, but can get to meaning anyway.

Here's another excerpt from S74 that illustrates how George gets the meaning together.

Subject: The teacher had made a rule that no dogs could come to school.

Researcher: Was the teacher in the story?

S: Yeah.

R: OK. Can you tell me about the teacher?

S: She was the one who made the rule that the dog, that the dogs couldn't come.

R: What else did she do?

S: I don't believe it was a she; I believe it was a mister.

George has remembered a single reference in the story:

Mr. Rector kept him after school. (line 0321)

George reads Rector as Retractor but still knows it was a male teacher.

Half of George's miscues in both stories produce no transformation. About a third produce a different deep structure. Only 8.2 and 10% involve loss of deep structure. About 80% of his acceptable miscues involve no syntactic change for both stories. That's substantially more than any other AP4 subject. Semantic change on acceptable miscues in both stories clusters most heavily on minor change. That's not unusual for the group.

Omissions are infrequent for George, 7.7% on S51 and 6% on S74.

Non-word substitutions are 21% for S51 and only 10% for S74. This pattern follows group trends. Relatively small percents of George's miscues have ER's that are function words, 11.6% on S51 and 17.5% on S74. The latter is higher but compares to the group mean of 30%.

His peripheral field miscues, 7.1 and 8.5% on the two stories are low for the group.

We can sum up George as a reasonably effective, but somewhat inefficient reader. He seems to be reasonably confident and is certainly able to take some risks as he seeks meaning. His inferences belie his low IQ score.

Appalachian Fourth Grade

As a group the fourth graders show means for both stories on most variables that are remarkably similar. (Table 5-5)

Coded MPH is 8.37 for S51 and 8.17 for S74. Dialect percent is 4.23 and 5.1. Non-dialect MPH is 8.03 and 7.79. Residual MPH is 3.17 and 3.16. Comprehending percent is 61.6 and 60.1. Correction means are just over 27%, semantic acceptability is about 45% and syntactic acceptability 65%+ on both stories.

Graphic and phonemic proximity are slightly higher on S51 than S74.

Patterns among the four AP4 subjects are not so varied as with some other groups.

Table 5-5

APPALACHIAN FOURTH GRADE GROUP STATISTICS

Subject Number Story Number	414		416		417		418		GROUP MEANS	
	51*	74**	51	74	51	74	51	74	51	74
Total Miscues	117	112	91	146	150	127	89	73	111	114
Coded Miscues	53	53	55	55	48	50	51	54	51.5	53
MPHW	9.72	8.83	7.33	8.33	9.86	10.40	6.57	5.12	8.37	8.17
Dialect Miscues	3	3	4	5	0	0	2	3	2.3	2.75
MPHW	0.55	0.50	0.53	0.76	0	0	0.26	0.28	0.33	0.39
Percent	5.7	5.7	7.3	9.1	0	0	3.9	5.6	4.23	5.1
Non-Dialect Miscues	50	50	51	50	48	50	49	51	49.5	50.3
MPHW	9.17	8.33	6.80	7.58	9.86	10.40	6.31	4.83	8.03	7.79
Residual MPHW	4.04	4.33	2.53	3.64	4.31	3.33	1.80	1.33	3.17	3.16
% corrected	16.0	18.0	21.6	16.0	31.3	32.0	40.8	43.1	27.4	27.3
% sem. acceptable	50.0	40.0	51.0	44.0	35.4	48.0	42.9	49.0	44.8	45.3
% sem. unacc. but corr.	6.0	8.0	11.8	8.0	20.8	20.0	28.6	23.5	16.8	14.88
Comprehending percent	56.0	48.0	62.7	52.0	56.3	68.0	71.4	72.5	61.6	60.1
% syn. acceptable	74.0	60.0	70.6	74.0	60.4	58.0	57.1	68.6	65.5	65.2
Proximity means										
graphical	5.79	6.05	6.22	5.24	5.21	5.22	5.70	5.72	5.73	5.56
phonemic	5.30	5.82	5.59	4.52	4.98	4.87	5.54	5.35	5.35	5.14
syntactic	8.16	8.40	7.19	7.76	7.83	7.59	8.14	7.51	7.83	7.82
semantic	6.42	6.67	6.31	7.23	6.78	6.67	6.57	6.76	6.52	6.83

* Freddie Miller, Scientist

** Old Ben Bailey Meets His Match

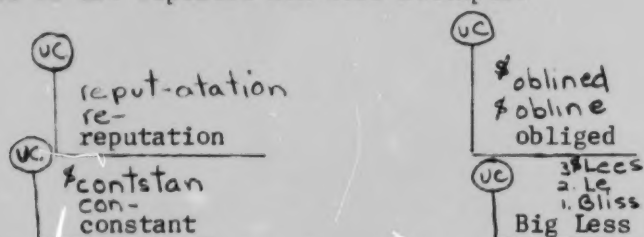
Residual MPHWR ranges on S74 from 1.33 to 4.33 and 1.8 to 4.31 on S51. Comprehending range is greater, 48% to 72.5% on S74; 56% to 71.4 on S51.

AP418, Bonnie, has an unusually high pattern of correction on both stories. She attempts correction on 53.1% of her S51 miscues and 70.6% on S74. She is successful in 40.8% on S51 and 43.1% on S74.

Bonnie shows the same prediction and cautious monitoring that characterize other readers with heavy correction.

Besides her corrections she has many running starts and corrected partials.

Some of her unsuccessful corrections are non-words after partial attempts or are repeated non-word attempts.



The quality of Bonnie's predictions, her tentativeness and careful monitoring are illustrated in this brief sequence from S75:

0116 Funny was racing
 0201 after him. Lester felt so sorry for the dog that he didn't
 0202 heard her sc- pretended the heart to scold him. He patted him for a minute or two.
 0203 Then he said, "I'll h- have to take you e- home again even if it
 0204 makes me late to school,"

She has numerous repetitions, some following corrections. She anticipates him for the dog and didn't have for hadn't, correcting both. She loses the idiom in hadn't the heart, perhaps because of the unusual use of had as transitive verb with n't. Her numerous repetitions on this sentence show a not totally successful search for structure and meaning. With pretended for patted she has, perhaps, shown a semantic expectation but again corrects. Then she proceeds cautiously.

Bonnie produces only 10% non-words, but she has an unusual amount of miscues involving multiple morpheme words, 17.3%, two to three times the rate of her peers.

Omission is a strategy she uses rarely. She has 3 (6%) in S51 and none in S74. Her omissions are was, when and this. All are corrected.

She has 7 insertions (14%) on S51 but only 3 on S74. Three insertions involve a section on fixing the alarm clock. The author calls it alarm clock once, clock six times, and alarm twice. Bonnie inserts alarm twice with clock and clock once with alarm. She inserts the twice with common nouns and some once with a common noun. The only really complicated insertion is this one of said:

(PS) When Freddie told how he had fixed the alarm clock, Mrs. Miller said,
 (C) "You've Charlie" said Mr. Charlie was always
 "You're just like Uncle Charles, my brother."
 3. tinkerling
 2. tinkerlin
 1. tinkerlin-
 tinkering with clocks in Switzerland." (lines 0501, 0502, 0503)

Bonnie shows some more or less serious confusions in her retellings though they have a lot of detail. In S51 she has Freddie in the closet and his sister getting mother to let him out. That's a pretty basic misconception.

In S74 she calls Lester, Lee, and the teacher Mr. Lester. She has Lester intentionally bringing his dog to school instead of being followed by him.

She knows he missed spelling words, but thinks he missed them because he was late, not because he was worried.

She says that after the two had tricked each other "well then they played this game. And the boy beat the man I guess then." She misses that the tricks were the game.

These misconceptions and minor misunderstandings suggest that Bonnie may be overconcerned with monitoring her predictions on the phrase and sentence level and losing some threads of the story's meaning. Her effectiveness is suffering a little because she corrects to the point of inefficiency.

Although her residual MPHWS is below 2 on both stories and her comprehending percents are about 72%, only 42.9 and 49% of her miscues are semantically acceptable before correction. This may again reflect somewhat ineffective strategies.

Bonnie consistently reads Mrs. as Misriss, an archaic form which survives in Appalachia. The dialect described in detail in the discussion of George, AP414, is pretty well characteristic of the group. Most of that shown in the reading is phonological. A good deal more of syntactic, lexical and idiomatic dialect shows up in the retelling.

Correction patterns are similar on both stories for AP4. That follows from the similarity on all other variables.

Unsuccessful corrections are 10.6% on S51 and 13.4 on S74 with successful corrections a bit over 27% on both.

Percents are also quite similar for correction and syntactic acceptability. Of miscues syntactically unacceptable, about 30% in each story are corrected. Correction of partially syntactically acceptable miscues is 48% on S51 and 40% on S74. About 20% of syntactically acceptable miscues are corrected on both stories.

Whereas over 60% of unsuccessful corrections in both stories are on miscues which are fully syntactically acceptable, only 29% are semantically fully acceptable on S51 and 15% on S74. But over a third of the unsuccessful corrections are fully semantically unsuccessful on both stories while only 14.3% are fully syntactically unacceptable on S51 and 7.4% on S74.

A difference between the two stories shows on successful correction and semantic acceptability. On S51, 48% of partially acceptable miscues and 45% of those semantically acceptable only at the sentence level are corrected. On S74, only 30% of partially acceptable miscues and 39% of those acceptable in sentence only are corrected. AP4 corrects 17.5% of semantically unacceptable miscues on S51 and 20.9% on S74. They correct 13% of fully semantically acceptable miscues on S51 and 22% on S74.

These patterns in correction show an underlying difference which may be due to differences in the stories' predictability.

About 15% of AP4 miscues on S51 show peripheral field cues. For S74, 18% show such cues. AP416 shows the most with almost 25% on S51 and 23% on S74. AP414 (George) shows under 10% on both stories.

Appalachian Second Grade

Our Appalachian second graders make a lot of miscues (see Table 5-6). Mean coded MPHw on Kitten Jones (S44) is 17.54 and S75, Sweet Patootie Doll, it is 20.11. Dialect is only 4.2% and 7.18%. Non-dialect MPHw is still high, 16.89 and 18.97.

With a range from 0 to 32% correction, the means for correction are 17.88 and 10%. Semantic acceptability is moderate, 46.3% and 39.2%, with a relatively small range. So residual MPHw is still quite high, 7.84 and 10.35, and comprehending percent is 56.7 and 46.2%. Syntactic acceptability means are almost identical, 61.7 and 61.3%.

All subjects, judging by residual MPHw and comprehending percent, find S44 easier than the more relevant S75. AP407 has 48% comprehending on both but with 27.17 non-dialect MPHw on S75, the residual MPHw is 14.13 on that story. AP405 has 50% semantic acceptability on both stories.

Table 5-6

APPALACHIAN SECOND GRADE GROUP STATISTICS

Subject Number Story Number	404		405		407		410		GROUP MEANS	
	44*	75**	44	75	44	75	44	75	44	75
Total Miscues	91	127	59	93	182	207	163	196	123.8	155.75
Coded Miscues	55	55	52	58	52	52	53	50	53	53.75
MPHW	11.80	14.82	8.35	11.72	24.76	28.26	25.24	25.64	17.54	20.11
Dialect Miscues	4	5	2	8	2	2	1	1	2.25	4.00
MPHW	0.86	1.35	0.32	1.62	0.95	1.09	0.48	0.51	.65	1.11
Percent	7.3	9.1	3.8	13.8	3.8	3.8	1.9	2.0	4.2	7.18
Non-Dialect Miscues	51	50	50	50	50	50	52	49	50.75	49.75
MPHW	10.94	13.48	8.03	10.10	23.81	27.17	24.76	25.13	16.89	18.97
Residual MPHW	4.51	8.89	2.57	4.04	12.38	14.13	11.90	14.36	7.84	10.35
% corrected	19.6	10.0	32.0	16.0	18.0	14.0	1.9	0.0	17.88	10.0
% sem. acceptable	47.1	28.0	50.0	50.0	38.0	36.0	50.0	42.9	46.3	39.2
% sem. unacc. but corr.	11.8	6.0	18.0	10.0	10.0	12.0	1.9	0.0	10.4	7.0
Comprehending percent	58.8	34.0	68.0	60.0	48.0	48.0	51.9	42.9	56.7	46.2
% syn. acceptable	58.8	36.0	74.0	80.0	60.0	68.0	53.8	63.3	61.7	61.8
Proximity means										
graphic	5.74	5.17	6.14	6.26	5.33	5.45	3.91	3.56	5.28	5.11
phonemic	5.58	4.26	5.45	5.48	5.53	4.13	3.64	3.03	5.05	4.23
syntactic	7.45	7.61	8.30	8.57	7.83	7.79	8.38	7.58	7.99	7.89
semantic	6.35	5.80	5.64	6.56	6.26	6.94	6.15	5.95	6.10	6.31

* Kitten Jones

** Sweet Patootie Doll

Residual MPHw is quite varied: 2.57 to 12.38 on S44; 4.04 to 14.36 on S75.

Only AP404 on S75 falls below 50% syntactic acceptability with 36% on S75. AP405 has 80% syntactically acceptable miscues on S75.

Graphic and phonemic means also show great range through the subjects. AP410 has means on both variables in both stories under 4: in fact, phonemic proximity is only 3.03 on S75. But AP405 has graphic means over six on both stories and phonemic means of almost 5.5.

It would appear to be worthwhile to contrast the substitutions of AP410 and AP405. Near the end of first grade, AP410, Lyra, tested 1.9 grade level and AP405, Elsa, 2.1. That would appear to make them similar in proficiency.

But they are very different in their miscue patterns.

Lyra, AP410, shows the miscue pattern of a second grader who is predicting, seeking meaning, using all cue systems, but without integrating all the systems.

She produces they for we, also/always, Jane/Sue. These show only minimal graphic or phonemic proximity between ER and OR. But here's the text in which they occur:

^{They} "We have four young ones," Mr. and Mrs. Jones ^{also} always answered.

"Penny, ^{Jane} Sue, Jack, and Kitten Jones!" (lines 0103, 0104, 0105)

All are syntactically acceptable and at least partially acceptable semantically. She calls Sue, Susan, next time it occurs but then goes back to Jane for the rest of the story. Always becomes also once more and then is read correctly on its third occurrence.

But Lyra isn't always so successful:

"Penny and ^{Susan} Sue Jones liked to wear pretty colored dresses ^{walked} ^{young} Jack

^{Johns} ^{also} Jones always went ^{around} in overalls or a ^{other} ^{su-} ^{summer} ^{sun} suit. (lines 0106, 0107, 0108)

The strategy of seeking meaning is strongly indicated here:

One day Penny ^{can} rushed up the ^{hill} front steps and into the house. (lines 0201, 0202)

"Penny, why are you so excited?" (line 0204)

line 0505

You can

line 0506

see every ^{fester} feather on that bird ^{on} You can

line 0507

almost count the ^{paint} ^{picture} feathers.

line 0602

The one of

line 0603

her playing in the ^{with} ^{camera} rose vines

These last examples illustrate her use of a developing meaning to predict. She knows that a camera and pictures are involved, but doesn't read camera right until the last line.

But she substitutes picture (pitcher in her dialect) in these examples:

(They) took the little ^{picture} camera everywhere. (lines 0301, 0302)

You should see those ^{pictures} prizes. (lines 0209, 0210)

Now she walked over to the ^{pictures} camera. (line 0406)

All the family stood around ^{the} ^{picture} him when the prints were done. (lines 0419, 0420)

I give her this pretty bowl... ^{picture} (lines 0710-0711)

She makes these substitutions for camera: \$telsefar, picture (twice), light (3 times), rake. She substitutes camera for rose vines (see above) and crow:

We must send this ^{off} ^{camera} picture of the crow. (line 0608)

Prize is another word she has problems with, but her substitutions show risk-taking in a meaning-seeking sense that sometimes gets wild:

There will be prizes for children... (line 0208)

"You should see those ^{pictures} prizes!" (lines 0209, 0210)

"This picture is ^{working} worth a first prize. (lines 0705, 0706)

Penny, ^{Jane John} Sue, Jack did not ^{wait} win any prizes. (lines 0712, 0713)

They ^{gave} loved all the prizes she ^{first} received. (line 0714)

She gets even more remote with contest:

...send them to the ^{stenten} contest?" (line 0218)

to the ^{tin can} contest (line 0218)

sent to the <sup>tin can
can
candy</sup> contest (line 0610)

it was the best picture in the ^{wall} contest (lines 0613, 0614)

Sometimes she seems to be going on pure anticipation of meaning:

he didn't want ^{doll} sweet potato for dinner (lines 1004-1005)

Three cheers for ^{Kittens} Kitten Jones! (lines 0703, 0704)

Kitten Jones shall ^{fell} receive ^{working} this bell ^{is ringing} to wear." (lines 0706, 0707)

...A doll made out of ^{hanky doll puppet} sweet potato... (lines 0103, 0104)

Sometimes she seems to deliberately substitute a meaningful word for one she can't cope with:

^{Big} "Marionette dolls!" ^{answered Jane} exclaimed Sue. (line 0215)

"There are ^{spare bats} baseballs, ^{other} bats, marionette dolls... (line 0213)

...Lucy's ^{washed-out} worn-out mitten, for sure! ^{it} (line 0400)

...pouring water into ^{a cup} an acorn. (line 0512)

...Doll's ^{small} curvy mouth...(line 0513)

...sat on the ^{chair} stump in the ^{grass} sunshine...(lines 0519, 0520)

...a ^{blue bird} mockingbird called ^{"Smiley"} Sweetly...(line 1103)

Here's a prime example:

Ho! Ho! Ho! Snap! Snap! Snap! They took pictures of their mother ^{washing}

her ^{dress} party clothes. (lines 0307, 0308)

And consider her reading of this passage as she seeks the meaning:

...she found an old brown ^{Xnunkshaw} sweet potato. (line 0208)

It had a ^{potato} bump on ^{it and} one end, just right for a ^{heart} head. (lines 0301, 0302)

And the bump had two ^{beggar} specks, just right for ^{eyes} eyes, and a brown

^{peeling on} curvy scratch, just right for a mouth. (lines 0303, 0304, 0305, 0306)

But Lyra can and does use graphophonic cues: book/brook, followed/found, have/held, like/look, off/of, ringing/running, smell/smile, \$merl/smile, side/said, silly/still, wash/watch, taking/talking. And of course, with all her miscues, about 25MPHW on both stories. She is still reading about 3/4 of the text with no miscues.

One of the most curious things Lyra does is the production of non-word substitutions with minimal graphophonic proximity to the ER: \$tenten/contest, \$telsafar/camera, \$garnt/corners, \$werching/crow, \$marum/darkroom, \$sicka/course, \$keet/picked. These may simply represent uninhibited use of cues on Lyra's part and a strategy indicating that phonics has limitations.

Her remarkable semantically acceptable predictions illustrated earlier would work better if she developed correction strategies. She shows virtually no successful correction in the coded portion of either story, though she has unsuccessful corrections of 20% in S44 and 12% in S75. She shows some correction in the latter uncoded parts of both stories, perhaps reflecting her build-up of contextual meaning.

She seldom omits words, only 6% omissions on S44 and 12% on S75, nor does she produce many non-word substitutions, about 4%* on both stories. Neither she nor the group show insertions in either story. Relatively few of her miscues involve function words, 13.5% on S44 and 9.9% on S75. Nouns comprise 41.2% of her S44 miscues and 45.5% of those in S75. She's lower on function words and higher on nouns than the group.

Her syntactic acceptability is only slightly higher than semantic on S44, 53.8% compared to 50%.

Lyra seems to use a strategy of substituting real words within the semantic context for words and phrases that cause her problems. She doesn't pull these real words from the surrounding text.

Her use of peripheral cues is low as is the AP2 group's: 14.5% on S44 and 9.3% on S75. Her substitutions aren't strongly influenced perceptually which confirms that she is making strong predictions.

She does little crossing of sentence boundaries. Only 5.9% and 10% of miscues involve intonation.

When her miscues are acceptable semantically, she shows a moderate amount of meaning change. Her mean is about 6 on both stories.

Our experience suggests that the pattern Lyra shows is an unstable one: she will either become more successful at comprehending using more cues to confirm or disconfirm her predictions or she will become more concerned with accurate word identification and less with comprehension. She may, in fact, already be in transition from a kind of meaning focus which only touches base occasionally in the print to more productive reading.

AP405, Elsa, shows a quite contrasting pattern. On Story 44, 43% of Elsa's miscues differ by 1 letter from the ER. Lyra has 11.4% such miscues. But 23% of Lyra's miscues have no more than one medial letter in common compared to 8% of Elsa's. On the same story 35% of Lyra's miscues show little or no phonemic similarity. Only 16% of Elsa's are like that.

Here's Elsa's reading of the paragraph from S44 we report earlier:

"We have four ^{young uns} ^d, Mr. and Mrs. Jones ^{Missis} [@] ^{away} ^C always answered,

"Penny, ^{sure} ^C Sue, Jack and ^{Kittens} Kitten Jones!" (lines 0103, 0104, 0105)

* Some examples cited above are from the large uncoded portion of her miscues.

All her miscues in this paragraph show either high graphic or phonemic proximity or both. She immediately corrects two of three non-dialect miscues.

Elsa is cautious. Midway in the first page she stops before changed:

Elsa: Um. I don't know that word.

Researcher: Remember we said you would do whatever you would do if you were reading it to someone who couldn't help you.

Pause

Researcher: Do whatever you would do.

Pause

Researcher: Why don't you just skip it and go on.

Elsa: \$Canged (hard g)

She shows only 2% omissions on S44 and 5.8% on S75. She has no insertions.

Here are her non-word substitutions:

<u>ER</u>	<u>OR</u>	<u>ER</u>	<u>OR</u>
changed	\$canged	Bald	\$Bally
contest	\$construst	curvy	\$crelvy
Vine's	\$Vin's	acorn	\$acorn
vines	\$vince	ringing	\$ringling
patootie	\$patoe	burying	\$brunting

Every one has high graphic and/or phonemic proximity. Most retain grammatical function.

Here are some of her substitutions that are semantically acceptable:

<u>ER</u>	<u>OR</u>	<u>ER</u>	<u>OR</u>
sun suit	sun set	spot	sprout
rushed	<u>reached</u>	sewing	swing
contest	concert	get	give
she	Sue	sniff	snuff
thomped	tramped	printed	painted
in	on	Mam	Mama
Pap	Papa	even	ever
head	hand	bump	bottom
patootie	potato	Sunny days	Sundays
won't	wouldn't	Sue	<u>sure</u>
when	then		

Here are some that aren't semantically acceptable:

ER	OR	ER	OR
bump	dump	skirt	scratch
tied	tried	smile	smell
coon	corn	first	front
headed	handed	paws	plows
washed	wished	a	to
though	thought	he	the
colored	colors	of	out
contest	conscious	tried	trapped
taking	talking	his	the
crow	cow	feathers	fathers
decided	danced		

The high graphic and phonemic similarity of these substitutions, both acceptable and unacceptable, is evident. Both Lyra and Elsa are oriented to substitute real words. But Elsa's are constrained by the graphophonic as well as the syntactic and semantic parameters. Furthermore, she corrects 32% of her S44 miscues and 18% of S75 miscues successfully.

Though she has similar percents of semantic acceptability to Lyra, her correction raises her comprehending percents to 68% and 60%, compared to 51.9 and 42.9% for Lyra. Her coded MPHWS on the two stories are less than 1/2 of Lyra's, so her residual MPHWS are 2.57 and 4.04, compared to Lyra's 11.9 and 14.36. She has her reading much more together than her peer.

In her few substitutions that show little or no graphic and/or phonemic proximity to the ER she looks like Lyra.

...ran into the ^{yard} house... (S75, line 0517)

...people asked ^{your} Mr. and Mrs. ... (S44, line 0102)

Sally dreamt
Silly Young Fox dropped that doll... (S75, line 1601)

Mister Bear
Here came old Man B'ar, ... (4 times) (S75, line 1504)

He ^{springed and} ^{brought a} ^{bonnet}
spied the bright bonnet. (S75, line 1202)

Elsa makes semantic predictions as she does 4 times with old Mr. Bear for old Man B'ar. Sometimes, as in the last sentence above, she gets lost, too.

On occasion, her similar-looking and sounding substitutions make less sense than Lyra's semantic free wheeling:

There chairs from Kittens
Three cheers for Kitten Jones!"...(S44, lines 0703, 0704)

"This picture is worth a first prize. (S44, lines 0705, 0706)

"Marionette dolls!" ^{Martin} (exclaimed) Sue. (S44, line 0215)

...best picture I ever saw!" ^{wrote} explained Penny. (line 0504)

"We must send this picture of the crow to the contest," Mr. Jones

^{off to}
decided. (lines 0608, 0609)

Elsa's reading, then, is not without weaknesses. She occasionally clings too closely to graphophonic restraints even when meaning is lost and is a bit timid about leaving them. She omits exclaimed twice before substituting explained. Lyra substituted answered three times. That doesn't make Lyra's strategies as successful as Elsa's. Lyra also substitutes hippy, just, and \$snixed for excited, a word which produced no miscues for Elsa. But the road to success for Lyra is not more careful sounding out. Being more careful than she already is wouldn't help Elsa. Elsa needs to relax, be more confident of her strategies and take a few more risks in the quest for meaning. Lyra needs to focus primarily on self-monitoring. Lack of successful correction is her main weakness. Furthermore, if she does more self-monitoring, she will also make fewer and better miscues.

If Lyra had skill or word attack problems, she could not read as successfully those words she does. It is in the context of monitoring for meaning that further attention to graphophonic constraints will be helpful.

Ironically, Elsa, with much higher self-correction percents, is still in need of better self-monitoring. About half the miscues she corrects are already semantically and syntactically acceptable. She needs to be more willing to accept minor acceptable variations. She seems to be too carefully monitoring for accuracy in word identification.

The other AP2 subjects show patterns that are again different. AP407 has graphic and phonemic means that are moderate, except for phonemic on S75, which is 4.13. But he has coded MPHw as high as Lyra's and residual MPHw in the same high range 12.38 and 14.13. He has only 38 and 36% semantic acceptability. Even with some correction (18 and 14%), comprehending percent is near Lyra's, 48% on both stories.

AP404 has graphic and phonemic scores closer to Elsa's, though not as high, except graphic on S44, 5.58. His residual miscues are much lower on S44 than S75 and semantic acceptability, correction, and comprehending percents are lower on S75 than S44. Comprehending is only 34% for AP404 on S75 and even syntactic acceptability is a low 36%.

Dialect percents range from 1.9% to 13.8%. The latter is Elsa on S75, primarily some ed deletions on verbs:

EX	OR	ER	OR
named	name	turned	turn
picked	pick		

The AP2 group shows less than 3% secondary dialect or doubtful dialect miscues. They do, of course, show dialect in retelling:

They was having a contest
 I don't know no more
 I don't know why they done it
 They was looking for dinner
 the girl come out
 I don't know nothing
 food ain't
 She fixed a potato into a doll
 her doll had went out
 she must've got a carrot

Though all four readers found S44 easier to read, all but one also had higher retelling scores on S75, the relevant story. AP407, despite high miscue rates and low comprehending percents, has the highest retelling scores on both stories. Elsa's are a bit lower on both, then come Lyra's and last are AP404's who has only 23% on S75. That goes with his very low 34% comprehending score.

AP2 retelling scores are, in general, considerably lower than fourth and sixth grade AP readers.

As a group these second graders correct 35% of their syntactically partially acceptable miscues, but only 8% of the unacceptable ones on S44. That's less than the 16% of syntactically acceptable miscues corrected. Unsuccessful corrections are as frequent as successful, 17.8%.

With only 10% successful corrections on S75, the group shows no strong preference for correcting syntactically unacceptable, acceptable, or partially acceptable miscues.

Heaviest unsuccessful corrections are on fully acceptable miscues, about 20%.

Correction of semantically unacceptable miscues is low, 7%, on S44, but 27% partially acceptable miscues are corrected and 22% of miscues semantically acceptable in sentence only. Ten percent of fully acceptable are corrected.

On S75 heaviest correction is on semantically fully acceptable miscues, 22% successfully corrected and 33% unsuccessful attempts. Only 13% of partially semantically acceptable miscues are successfully corrected and another 16% involve unsuccessful attempts. Very few miscues, semantically acceptable in the sentence only or acceptable except for other miscues, are corrected.

Eleven percent of semantically unacceptable miscues are corrected and another 20% involve unsuccessful attempts.

They do correct 35% of miscues with no phonemic proximity on S44. Another 15% have unsuccessful correction attempts. On S75, no phonemic level stands out for successful correction. But there are heavy percents, 31.8 to 55.6, unsuccessful attempts to correct on those coded phonemically in middle ranges 3-7.

What's important again here, with only 10% successful correction as a group on the story, is what is not being corrected. As a group, these readers are not successful in correcting where they need to for effective comprehension.

Appalachian Sixth Grade

The sixth grade Appalachian readers are also varied but more moderately than their second grade counterparts. (Table 5-7)

Coded MPHw is comparable, 10.4 and 11, for the group on their stories, S53, My Brother Is A Genius, and S76, Cat Fight. But individuals range from 5.8 to 15.9 on S53 and 8.1 to 14 on S76. The two with highest MPHw have comparable MPHw on the two stories, but S53 is higher: 15.9 compared to 14 on S76 for AP421; 13.1 compared to 12.6 for AP422. The other two show higher MPHw for S76: 5.8 and 8.1 for AP423; 6.6 and 9.4 for AP430.

Non-dialect MPHw is 10% for S53 and 9.9 for S76. All readers have higher dialect percents on the relevant S76, than S53, except AP430, who has near equal dialect, 5.7/5.8%.

Because of variations in correction and semantic acceptability patterns, residual MPHw and comprehending vary much less. AP423, lowest in non-dialect MPHw has highest correction, 31% and 36%, but lowest semantic acceptability, 47 and 42%. That produces 74.5% comprehending on S53, high for the group, and 62% for S76, low for the group. She's the only one with lower comprehending on S76 than S53. But her residual MPHw are 1.4 and 2.8.

AP430 has much lower correction than AP423, 14 and 12.2%, but higher semantic acceptability, 50 and 55.1%. Furthermore, most of her corrections are on semantically unacceptable miscues, so her comprehending percents are 62 on S53 and 65.3 on S76.

Table 5-7

APPALACHIAN SIXTH GRADE GROUP STATISTICS

Subject Number Story Number	421		422		423		430		GROUP MEANS	
	53*	76**	53	76	53	76	53	76	53	76
Total Miscues	270	273	240	269	141	187	169	179	205	227
Coded Miscues	52	55	52	55	53	56	53	52	52.5	54.5
MPHW	15.9	14.0	13.1	12.6	5.8	8.1	6.6	9.4	10.4	11.0
Dialect Miscues	1	5	2	8	2	6	3	3	2.0	5.5
MPHW	0.3	1.3	0.5	1.8	5.6	0.9	0.4	0.5	0.4	1.1
Percent	1.9	9.1	3.8	14.5	3.8	10.7	5.7	5.8	3.8	10.0
Non-Dialect Miscues	51	50	50	47	51	50	50	49	50.5	49.0
MPHW	15.6	13.0	12.6	10.7	5.6	7.3	6.2	8.8	10.0	9.9
Residual MPHW	6.1	3.3	4.6	2.5	1.4	2.8	2.4	3.1	3.6	2.9
% corrected	15.7	18.0	24.0	27.7	31.4	36.0	14.0	12.2	21.3	23.5
% sem. acceptable	49.0	62.0	52.0	57.4	47.1	42.0	50.0	55.1	49.5	54.1
% sem. unacc. but corr.	11.8	12.0	12.0	19.1	27.5	20.0	12.0	10.2	15.8	15.3
Comprehending percent	60.8	74.0	64.0	76.6	74.5	62.0	62.0	65.3	65.3	69.5
% syn. acceptable	60.8	74.0	74.0	66.0	68.6	68.0	68.0	65.3	67.9	68.3
Proximity means										
graphic	5.1	5.1	5.4	4.9	6.1	6.1	5.7	5.5	5.6	5.4
phonemic	4.2	4.9	4.9	4.9	5.7	5.9	5.0	5.4	5.0	5.3
syntactic	6.8	7.1	7.2	6.8	8.3	8.1	7.9	7.0	7.6	7.3
semantic	7.0	6.9	6.9	7.2	7.4	6.9	6.4	7.0	6.9	7.0

* S53 My Brother Is A Genius**S76 Cat Fight

AP422, with higher non-dialect MPHw, 12.6 and 10.7, than the first two above, corrects 24 and 27.7%. He has 52% and 57.4% semantically acceptable. Fifty-two percent is the high, in a narrow range, for the group on S53. Comprehending is 64% and 76.6%; the latter is high for the group on S76. Residual MPHw is 4.6 and 2.5. The latter again is the best for the group.

AP421, with non-dialect MPHw much higher than his peers (15.6 and 13), shows yet another pattern. His corrections are 15.7 and 18%; semantic acceptability is high for the group, 62% on S76 but only 49% on S53. That yields comprehending percents of 60.8 and 74% and residual MPHw of 6.1 and 3.3.

Residual MPHw varies from 1.4 to 6.1 on S53, but only 2.5 to 3.3 on S76. Group means are 3.6 and 2.9.

Group means for correction are 21.3 and 23.5, for semantic acceptability, 49.5 and 54.1; comprehending 65.3 and 69.5. All these favor S76 as slightly easier for the group, but conceal the differences discussed above. Syntactic acceptability means are almost the same, 67.9 and 68.3%. In this only AP421 shows strong contrast, 60.8% on S53, 74% on S76.

Group means for graphic and phonemic proximity are very similar, 5.6 and 5.4 for graphic, 5.0 and 5.3 for phonemic. Again, these conceal some variation. Subjects differ from each other, though all subjects have comparable scores for the two stories.

All subjects have higher retelling scores for the relevant story, S76, than S53. AP422 has scores of 76 on S53 and 84 on S76. He is high for the group and his 76 ties with two others in the whole study for high score on S53.

S76, Cat Fight, the relevant story, produced far higher percents of dialect miscues than S53 for all subjects, except AP430, as indicated above. But AP430 has 8% dialect doubtful on S53 and 18.4% on S76, much higher than any other AP6 subject.

This story includes a great deal of Appalachian dialect. That may have stimulated our subjects to shift towards their own dialect.

Their dialect miscues are like those already discussed.

But there is a related phenomenon this story presents. Our readers, confronted in print by their own dialect, may read it as expected, may shift to a more standard book dialect or may miscue in some other way.

We've tallied the several types of these dialect instances. They fall into four categories:

1. eye dialect spellings of dialect forms
2. dialect lexical items
3. syntactic alternatives
4. idioms

Here are the examples of each and the subjects OR's:

1. Eye dialect	430	422	421	423	Miscue %
gits	OK	OK	OK	OK	0
yuh	hum	OK	OK	OK	25
jest	(his) vest	OK	OK	OK	25
oncet	\$ownchet	\$oneset	\$oceant	\$onke	100
Naw	Yon	Wah	Now	Uh ^(C)	100
must of been	must been	have/of	OK	OK	50
so's	so	so	so	OK	75
more'n	OK	OK	more	morning	50
				mean	53%

2. Lexical items		2)burst	2)burst		
busted out		1)brushed	1)Bristle	bushed	100
crying	burst	(stomp)		his feet/	
stomped his	OK	OK	stopped	on	25
feet	OK	bailing	bowing	PC*	50
bawling	tow	toll	tow	OK	75
tote	now				
how dyed	dried	hounded	\$howed	\$howed	100
	OK	OK	OK	OK	0
paper poke	PC*	OK	OK	afraid	25
afear	pleased	pleases	OK	pleased	75
pleasured	OK	OK	OK	OK	0
most noon	OK	moosted	\$mosed	moaned	
moseyed off	OK	off	off	off	75
	OK	OK	somewhere	some	
somewheres				where	50
	OK	likened	OK	OK	25
likely it was	OK	anywhere	anywhere	PC*	50
anywheres	PC*	OK	clear	OK	25
clean into			into		
	OK	OK	OK	OK	0
sure enough	OK	OK	OK	OK	0
right then	OK	heard	OK	OK	25
hereabouts	OK	about			
	OK	OK	a her	OK	25
a heap of fun			of fun		
	mightly	OK	PC*	OK	25
mighty quick	quick				
				mean	43%

3. Syntactic alternatives					
real clear	OK	really	really	OK	50
		clear	clear		
occasional(adverb)	omit	sucral	occa-	occa-	50
			sionally	sionally	

3. Syntactic alternatives

(Cont'd)	430	422	421	423	Miscue %
jerk it	jerk it	OK	jerk it	OK	50
quick	quickly		quickly		
hook me a					
mess	OK	OK	OK	OK	0
sixty year		sixty	sixty	sixty	
about	OK	years	years	years	75
		about	about	about	
ripped bad	him ^(c)	OK	OK	OK	25
					mean 42%

4. Idioms

cuts a quick					
glance	OK	OK	OK	OK	0
hit out for	hit out	OK	hit out	OK	50
	of		of		
that full	omit	OK	PC*	OK	25
of scare	full				
bad fear	OK	OK	PC*	bad fear	25
sickness				sneakness	
of a sudden	all of a	all of a	PC*	PC*	50
	sudden	sudden			
had no more	OK	OK	OK	OK	0
than hit					
big old legs	OK	omit	OK	PC*	25
took out for	OK	OK	OK	OK	0
ever I heard	OK	ever/even	I	I	75
			ever	ever	
			heard	heard	
					mean 28%

*PC = a partial attempt which is corrected

Our subjects miscue in about 40% of the possible opportunities in these book representations of their dialect. That's clearly more than random judging by their overall 11.0 MPHw on the story. The highest percent of miscues is on the eye dialect, though some of those items cause more trouble than others. Oncet is interesting as an example because all of our subjects produce that pronunciation in reading once, but they're unable to recognize the spelling with a t added. Perhaps wunst is better eye dialect spelling. We use the term "eye" dialect to mean any made up spelling designed to represent speech difference. Must of is an example of eye dialect, which authors use without realizing that there is a real spelling, must've, for that. It's possible no miscues would have occurred if the author had not used this spelling. So's and Naw seem to be like oncet: the readers can't relate them to the speech form the author is attempting to represent. But with so's, they go to a more standard so. The responses to eye dialect demonstrate that invented spellings are often hard to read.

The most general phenomenon illustrated by these miscues on dialect form is that readers have learned not to expect their dialect in print. Several of the lexical, syntactic and idiomatic items illustrate that. They are surprised by busted. Perhaps AP421's bursted would have been a better spelling anyway. Tote, moseyed, pleasured, howdy also are surprises. But some dialect terms aren't as unexpected: poke, 'most, afeared. They shift to somewhere and anywhere from somewheres and anywheres, but there are examples of opposite shifts in their reading.

Their tendency to supply ly on real, occasional, quick is an interesting example of book dialect expectation. Apparently, bad as an adverb is not as unexpected. They also put the s on year in sixty year. Me as a reflexive caused no problems.

Idioms, in general, are least troublesome, 28% of possible instances produce miscues. The most unexpected is ever I heard. The unusual word order of the idiom causes 2 shifts to standard word order and even for ever substitution. The number of corrected partials (PC) on these shows the readers are not completely unsurprised.

This small excursion into reading of dialect forms in print supports miscue studies, such as Sims (1972) of Black readers dealing with materials written in Black English. In her study, third graders switched as much or more to Standard in reading BE as they did to BE in reading Standard forms.

Our subjects have also demonstrated that use of eye dialect is not a desirable practice. It appears to serve no useful purpose and causes some problems. In most of the miscues on dialect forms, there is a shift to a more standard form. That's true, only with so's in eye dialect. With most of the eye dialect and some unusual lexical forms a miscue means lost meaning.

Our results don't, however, suggest that dialect should be avoided in general -- in fact, they argue that readers need more experience in seeing dialect, their own included, in print. Particularly, they can learn to handle the syntax and idioms if they are less unexpected. Perhaps eye dialect should get special attention when readers encounter Mark Twain, Bobby Burns and other authors.

More About AP6

In S53, these sixth graders correct half of their miscues partially acceptable syntactically, 29% of those fully unacceptable and only 9% of those syntactically unacceptable in the passage. Unsuccessful correction is heaviest on syntactically unacceptable miscues, 29.2%. The pattern is similar on S76, but 40% of syntactically unacceptable miscues are corrected and only 8% involve any unsuccessful attempts.

Forty-five percent of miscues partially acceptable semantically are corrected in S53. Nine percent involve unsuccessful attempts. On semantically unacceptable miscues, 21% are corrected, but 21.1% involve unsuccessful corrections. Eighty-five percent of fully acceptable miscues involve no correction attempt. Only 6.5% are actually corrected. Only 10% of those semantically acceptable in sentence only are corrected.

Again the pattern on S76 is very similar. AP6 attempts correction on 52.2% of semantically unacceptable miscues and succeeds on 23.9%. They attempt correction on 68% of those partially acceptable semantically and succeed on 43%. They only attempt correction on 20.8% of fully acceptable miscues and succeed in correcting 13.2%. They attempt correction on 23% of those semantically acceptable in sentence only. Fifteen percent are successful.

They correct half of their miscues with no phonemic proximity on S53 and 52.6% on S76; that far exceeds their correction percents for those with moderate or high proximity. These correction patterns show response to syntactic, semantic and graphophonic cues and reasonably efficient confirming and correction strategies, though such strategies could improve.

AP422 and AP423 have quite high unsuccessful correction, 18-22% on the two stories, as does AP430 on S53. These tend to be on miscues semantically and/or syntactically unacceptable or partially acceptable miscues.

AP6 has 22.1% peripheral field miscues on S76 and 17% on S53. All of these are single morpheme words on both stories, except for one multiple morpheme word on S53. On S76, 13% of substitutions have peripheral cues, but 44.4% of insertions (4 of 9) do. On S53, 15.5% of substitutions and 24% of insertions have peripheral cues.

None of the AP6 subjects show many intonation miscues. AP421 is high with 10% on S76. Group percents are about 6% on both stories.

The Mississippi Black Group

Our subjects are residents of rural Claybourne County, Mississippi, due west of Jackson and bordering the Mississippi River. The County has about 80% Black population. Schools have been officially integrated for some years, but there are few white children or white teachers in the public schools. The dialect of the Black community from which our subjects come is relatively stable compared to urban Blacks in the big mid-western cities.

Port Gibson is the town the Union army found too beautiful to burn. Today descendants of slaves point out decaying aristocratic landmarks their slave ancestors built. Federal school and social welfare programs are major employers in this county of 10,000. Alcorn A & M, a predominantly Black college, is in a corner of the County.

So our MB subjects are poor, rural and Black.

No non-standard, socio-ethnic dialect has been as thoroughly described in recent years as Black English. Certainly it is the best described dialect of those spoken by any of the eight groups in this study. Rigg, in a doctoral study which uses the same sixth grade subjects as this study, has summarized current descriptions of Black English (BE) (Rigg, 1974).

The description that follows has been condensed, with permission, from Rigg, Patricia.

Phonological and Syntactic Features of Black English

Phonology

A. Vowels and diphthongs lose some glides. Others shift in position of articulation.

SE	BE	
ride /aI/	rod /a/	especially before /b, d, g, n, m, r, l/ seldom before /p, t, k, f, s/
oil /ɔI/	all /ɔ/	especially before /l/
pen /ɛ/	pin /I/	before /n/, sometimes before /m/ also characteristic of Southern SE-speakers
sure / r/	shore / r/	

Unstressed schwa is deleted or merged with a preceding article:

OR: He had eraser. He was sleep.

ER: He had an eraser. He was asleep.

B. Consonants

There is a tendency to reduce or simplify final consonant clusters.

A few individual consonants can also be distinguished:

SE		BE	SE	BE
/ð/	word-initial, often	/d/	/ðə/	/d /
	inter-vocalic, often	/v/	/mæðər/	/mævə/
	or	/θ/		/m /
	word-final,	/v/	/brɪð/	/brɪv/
	or	/d/		/brɪd/
/ /	word-initial, often	/t/	/θɪŋk/	/tɪŋk/
	word-initial, +r/, often	/f/	/θrɒt/	/frɒt/
	inter-vocalic, often	/f/	/nəθɪŋ/	/nəfɪŋ/
	inter-vocalic, +nasal, often	/t/	/ərɪθmətɪk/	/rɪtmətɪk/
	word-final often	/f/	/tuθ/	/tuf/
/r/	word-initial, no difference			
	post-vocalic, often	/ə/	/sɪstər/	/sɪstə/
	inter-vocalic, possible	/θ/	/kærl/	/kæəl/
	post-initial consonant, possible	/θ/	/prɒfəsər/	/pəfəsə/
/l/	word-initial, no difference			
	post-vocalic, often	/ə/	/stɪl/	/stɪə/
	post-vocalic, + C, often	/θ/	/hɛlp/	/hɛp/
	pre-labial, often	/θ/	/hɪl bi hɪr/	/hɪθ bi hɪ /

/b,d,g/ word final, devoiced	/p,t,k/	/kæ b/	/kæ p/
		/bæ d/	/bæ t/
		/lɪ g/	/lɪ k/
/d/ word-initial, no difference word-final + C, often before /z/, often	/θ/	/gʊ d mæ n/	/gʊ θ mæ /
		/kɪ d z/	/kɪ z/
/n,m,n/ syllable- final, often	/v/	/ræ m, ræ n,	/ræ /
		ræ n/	

(adapted from Holm, 1973)

Morphology

A. Nouns

1. Plural: in most cases, plurals are identical to SE. Some possible variants in BE are the following:
 - a. regularization of irregular plurals--"foots"
 - b. Ø plural marker when plurality is otherwise indicated--"two boy".
2. Possessive: the s is usually retained when the possessive noun is functioning as a noun rather than as a noun modifier--"The doll was 'Lizabeth's." /θ/ often replaces s when s is redundant--"Freddie mother call him names."

B. Pronouns

1. Case may be unmarked--"She put she hat on she head."
2. Possessive pronouns: "your" and "their" become homophonous with "you" and "they" due to phonology.
3. Relative pronouns: these may be deleted recursively
4. Predicate marker: a pronoun may be used to mark the predicate, especially after a clause intervening between subject and predicate--"Ray sister seven year old she got a new baby."
5. Dummy subject: "it" is used as a dummy subject both where SE uses "it is. . ." and where SE uses "there is. . ."

C. Function words

1. Articles: BE can use "a" where SE requires "an"--"a apple". (Burling, 1973).
2. Prepositions: Dillard (1972) feels that for both SE and BE, "the inventory of prepositions is the same, but their distribution is greatly different." BE uses "to, upside, out" differently from SE--"He over to his friend house." "I hit him upside the head." "He got out the car."
3. Conjunctions: Wherever SE uses "when" as a relative time clause marker, BE can use "when" or "time"--"I made you a livin', gal, time I was free." (Dillard, 1972)

The "either X or Y" pattern which is obligatory for SE can be used in BE, as well as the pattern "X or either Y." "I can go swimming or either cut yards." (Dillard, 1972)

D. Verbs

1. Present tense:

- a. Simple present tense requires no s marking Third Person Singular--"i go, he go." An occasional s after first or plural subjects may be attributed to hypercorrection--"I goes, they goes." (Dillard, 1972)
- b. Present progressive tense in SE permits contraction of the be. According to Labov (1969a), wherever SE can contract be, BE can omit, resulting in "He going."

2. Past tense

- a. Simple past tense in SE is regularly marked by -ed; in BE this suffix may be omitted
- b. Remote past, which SE indicates through an adverbial such as "a long time ago" is indicated in BE through "been", as in "She been gone" or "I been done it".

3. Perfect tenses

- a. Present perfect, have + en in SE, has no counterpart in BE. If Labov's suggestion about the ability of BE to omit where SE contracts be, were applied to have, it would predict such forms as "They gone there for four years now." Gefvert (1972) has suggested that done replaces have, resulting in "He done gone." Done + verb may be an indicator of an emphatic or completive past, so that "I done told you already" is not a perfect tense at all (Burling, 1973).

- b. Past perfect tense, had + -en in SE, is as difficult to describe as the present perfect. Dillard (1972) contrasts Remote Perfective (been + verb, -ing) with Immediate Perfective (done + verb). According to him, "I been know about her (a very long time) before I done meet her" is possible.
4. Future tense in BE, like future in SE, uses will and its contraction -'ll and also can use be + going to + verb. A phonological rule deleting final /l/ and a syntactic rule allowing deletion of be can result in sentences like "I going to leave soon" and "I go soon".

E. Modals

BE and SE use the same Modals, but BE, like some Southern forms of White NSE, allows double Modals. "I may can go out and get it."

F. be

When be is the main element in the verb phrase, it can be followed by a noun, an adjective, or an adverb of location in SE and in BE. In all three instances, BE can omit be. Labov (1969a) explains this as an optional omission where SE has optional contraction, and notes that in tag questions or short answers, where SE cannot contract, BE does not omit. "He my brother;" "He sick;" "He here;" may omit be in the question forms "He your brother?" "He sick?" "He here?" but the short answers cannot omit be: "Yes, he is."

Uninflected be indicates timeless or habitual action "Dillard, 1972; Burling, 1973). "Usually I be the one that have to go find everybody."

When be is an auxiliary in progressive tenses, its deletion indicates limited duration of action--"My mother, she going now." (Burling, 1973). Uninflected be in progressive tenses indicates habitual action: "Sometimes we just be jokin'" (Burling, 1973); "An' when they be sayin' if you good, you goin' t' heaven, tha's bullshit." (Labov, 1969b).

Negation

The SE rule for negation is to place a negative marker at the first possible location in the sentence; this may be the auxiliary or the first indefinite. The sentence "I want some" can thus be negated as "I don't want any" or "I want none." BE negates by placing a negative marker at the first possible location in the sentence and on the indefinite. "I want some" becomes "I don't want none." Burling lists ain't as a BE replacement for SE "am not, is not, are not, have not, has not, did not." Dillard (1972) says that Point of Time Aspect is negated by ain't; Progressive Aspect is negated by don't.

Question Formation

Simple yes/no questions are formed similarly in SE and BE: the subject and auxiliary are inverted. "Can I go?" "Do they want one?"

Information questions in which the question word replaces the subject are formed the same in SE and in BE: "Who came?"

Information question in which there are a question word and a subject may be formed differently in SE and in BE: the subject-auxiliary inversion is obligatory in SE; it is optional in BE. SE: "Where can I go?" BE: "Where can I go?" or "Where I can go?"

Questions as Embedded Dependent Clauses

To change a simple yes/no question into a subordinate clause, SE and BE use different rules. SE uses if or whether and does not invert the subject and auxiliary, producing "She asked if I could go." BE does not use if or whether and does invert subject and auxiliary, producing "She asked could I go."

To change an information question to a relative clause, SE does not invert the subject and auxiliary; BE can invert optionally. BE: "She asked where I could go" or "She asked where could I go." (Burling, 1973).

In two national assessments, Blacks in the Southeast of the United States scored considerably lower than whites in reading performance. As a region, the Southeast scored lowest of all regions. Though the 1976 assessment shows a considerable rise in mean among nine-year-old Blacks (fourth graders), they still are shown on the national assessment as the lowest of the lowest (NAEP, 1977).

A Mississippi Black Fourth Grader

A sense of the language and functioning in reading of these Black rural readers may be obtained by taking a close look at Darnell, one of the fourth graders.

Darnell was, when he read for us, two months short of his tenth birthday. The school records show his IQ score as 97. At the start of fourth grade his reading test showed a grade level equivalent of 3.2.

He has two sisters and a brother. His father is away in the army.

Here's his retelling of the standard story, Freddie Miller, Scientist:

Researcher: Tell me what this story is about.

Subject: About Freddie, he have, he use experiments and his, uh, he made some kinda chemical that turn his, uh, his sister's doll green. And he made experiment he want to keep for awhile and he put it in the refrigerator and his mudder, uh, smelt it and she made him clean it out. Then, his sister, and he want to, he, uh, he want to fix the clock after his father had told him it wasn't /watn't/ working at the breakfast table one morning and when he had a dream that he was at school and the teacher was talkin angrily to his father and the bell jus kep on ringin and ringin. And one, we-, uh, he said, he said it wasn't /watn't/ a dream, it was, his father told him it wasn't a dream, um, the alarm clock had went off at three o'clock. Then, uh, he said, uh, his, uh, so'em was wrong cause he set it for seven. Then his father told him, "You set it for seven?" He, what's he gon'-, uh, he said, "You set it for seven?" he said angrily. And den, and den, uh, his, uh, he want to make a bell for his mother. And he heard his sister callin him - she had got, uh, she had got, uh, stuck in the closet, the door had got stuck and she couldn't get outa da closet. And he made a flashlight and put it through /thoo/ the transom and gave it to her. And den when the father came home they told him about it.

R: How old do you think Freddie is?

S: Ten, or so'em like that.

R: Ten, or something like that? What kind of a guy do you think he is?

S: One who likes to make experiments and create thangs.

R: OK. Anything else you can tell me about his personality? About what kinds of things he likes to do?

S: No, I don't think so.

R: OK. How about his sister, Elizabeth, what's Elizabeth like?

S: Uh, she's his little sister and, uh, ...and she have dolls, she likes to play doll house, things like dat...scared of the dark, things like that.

R: Where do you think this story takes place?

S: Talkin bout in what state, or so'em like that?

R: Something like that, yes, where do you think it might be?

- S: You mean like in a house or someplace like that?
- R: Well, we know it's in the house, but I just wondered where you think maybe the story takes place. Could be in another state. Do you have any idea? Could it be around here?
- S: I don't think so.
- R: Why?
- S: Because I just don't think so - I think, because they were up there talkin bout Switzerland, things like that.
- R: OK. Where is Switzerland?
- S: I don't know.
- R: OK. That's all right. What, what did Switzerland have to do with the story? Do you remember?
- S: He was, uh, his mother always tell him that he was, uh, like one of his uncles in Switzerland.

Darnell speaks a form of vernacular Black English as his retelling shows. He often uses uninflected verb forms in place of s and -ed forms as in:

- that turn his sister's doll green
- his mother always tell
- he want to keep
- she have dolls

Other tenses also differ:

- had went off
- had got stuck

Like Black subjects we've studied in Detroit, however, Darnell is not completely consistent in any features of Black English that he uses either in his retelling or in his reading.

On the two stories he read, Darnell produces 30% and 35% of miscues with dialect involvement. He produces over 8 non-dialect MPHWS on one story and 6 non-dialect MPHWS on the other. But he has high percents of semantically acceptable miscues, 74% and 70%, and he corrects many of the unacceptable miscues. As a result, his residual MPHWS are reduced to .89 and .51, which are semantically unacceptable but uncorrected. He is very much concerned with meaning and capable of making sense of what he reads.

Darnell handles syntax and meaning with ease. His substitutions sometimes are not graphically and phonemically close to the expected response as these examples show:

...standing in a ^{the} corner. (S72, line 0204)

I'll stop by the ^{Mr.} Johnson's... (S72, line 0403)

... "but ^{UC} I've ^{not got} ~~not~~ a single little duck. (S72, line 0603, 0604)

It's not so ^{crazy} scary. (S51, line 0713)

He does a great deal of sentence transforming and semantic paraphrasing through use of omissions and insertions of words and junctures. Only about a third of his miscues involve no transformation. Yet he never completely loses deep structure in either story:

"I want you to save half ^{of} your allowance for it each week."
(S51, lines 0215, 0216)

...He thought that a scientist's life... (S51, lines 0217, 0218)

...Mixing the strange and the unknown. (S51, line 0222)

...being compared with ^{any of} his ^{uncles} uncle [^] Maximilian, who was a ^C real
scientist
chemist... (S51, lines 0310, 0311)

Once, however, he forgot himself ^{and} he looked at the butter

and ^{saying} said, "Please pass the clock." (S51, line 0405, 0406)

...he went to the edge of the strawberry patch ^E There he turned...
(S72, lines 0204, 0205, 0206)

"I came by to see... (S72, line 0509)

Darnell has a high percentage of miscues on both stories (27%, 18%) that involve intonation because of frequent manipulation of clausal relationships.

These syntactic and semantic permutations often show the influence of Darnell's dialect:

^{isn't}
 "I say it's no use wondering,"...(S72, line 0705)

Willie looked at Mr. Mudge's hat. (S72, line 0910)

"How do you know it was me?" (he asked) (S72, line 0910, 0911)

^{Miz} Mrs. Miller ^{say} said, "You're just like Uncle Charles." (S51, line 0502)

Only 12% of Darnell's miscues in both stories are semantically completely unacceptable before correction. Another 16% are partially acceptable. All the rest are at least semantically acceptable in the sentence.

Only 20% are syntactically unacceptable completely or partially.

Darnell corrects relatively frequently, 24% for one story and 36% in the other, both high for his group. He had only one unsuccessful correction on both stories. Half of his corrections are on semantically unacceptable sequences. Often these reflect predictions of strong possibilities:

Then one morning, poof! ^(C) she like that - the little hen disappeared. (S72, line 0105)

He stopped by the feed bin ^(C) If I should... (S72, line 0301)

...narrowed ^(C) to the safely outlined... (S51, line 0220)

^(C) As And he was eating, Freddie... (S51, line 0317)

...see if I can lead that little hen right ^(C) into out of the woods,"... (S72, lines 0802, 0803)

Darnell's miscues show unusually high percents of insertion and omission of words. Whereas his peers produce 70-80% substitutions, he has only 40% on one story and 55% on the other. He seems less "word bound" in his reading than his peers. That fits with his relatively low graphic and phonemic proximity scores. A fairly high percentage (about 25%) of Darnell's non-dialect insertions and substitutions are found in the peripheral text. This perhaps also reflects his concern for meaning and syntactic structure. He pulls predictable words in from the periphery as he reads.

His non-dialect miscues rarely involve bound morphemes. In fact, 93% do not, as compared with 70-80% in his peers.

Darnell had a substantially higher MPHW rate on Freddie Miller, Scientist, S51, than on the culturally relevant Little Brown Hen, S72. He had the higher percent of dialect (35%) on the latter. But he had similar comprehending scores, 86% and 88% respectively, and residual miscues below 1 MPHW on both. He had complete but superficial recall and did not get into either plot or theme in either story's retelling. He showed no misconceptions. His reading shows a much stronger concern for meaning than his retelling performance reveals.

Darnell's dialect miscues were more varied on the relevant story, S72. He showed a number of null for -ed past tense marker substitutions on both stories. But on S72, he also had several null forms for plural s and possessive s.

Each story showed a be deletion in a contraction (that for that's, you for you're) but in S72, Darnell also substituted I for I'd and how for how'd. There was only one omission of third person singular verbs but both stories use basically past tense, so only a few opportunities existed.

Two of Darnell's miscues showed syntactic dialect:

"I say ^{isn't} it's no use wondering,"... (S72, line 0705)

Stop by and see (if) I can get... (S72, line 0403, 0404)

The greater number and variety of dialect miscues on S72 may reflect its more relevant setting and language. Darnell swings more comfortably into his own dialect with it.

Nevertheless, he passed up many opportunities to shift to his own dialect in both stories. Though he has the highest rate of dialect shift in his group, he does not consistently shift on any single feature.

Darnell is, then, quite effective and efficient in both stories, as much so as any average fourth grade reader we have in this study.

Mississippi Black Fourth Grade

Darnell's fourth grade peers all seem less efficient than he is on most measures. One is slightly so, one considerably so and the last very much so. These four average readers show a great range on most variables. Coded MPHW varies from 8.04 to 20.92 on S51 and from 6.27 to 18.38 on S72. Only one subject, George, had a higher miscue rate on S72. But he showed more dialect and higher rate of comprehending on the latter so that residual miscue rate is substantially lower (4.47 on S51, 3.22 on S72).

Table 5-8

MISSISSIPPI BLACK FOURTH GRADE GROUP STATISTICS

Subject Number Story Number	312		315		318		320		GROUP MEANS	
	51*	72**	51	72	51	72	51	72	51	72
Total Miscues	134	148	99	144	162	258	249	364	161	228.5
Coded Miscues	77	70	63	77	60	71	77	66	69.3	71
MPHW	8.91	6.27	8.04	6.53	11.67	12.7	20.92	18.38	12.38	10.97
Dialect Miscues	28	20	13	27	10	21	27	15	19.5	20.75
MPHW	3.24	1.79	1.66	2.29	1.95	3.76	7.34	4.18	3.54	3.00
Percent	36.4	28.6	20.6	35.1	16.7	29.6	35.1	22.7	27.15	29.00
Non-Dialect Miscues	49	50	50	50	50	50	50	51	49.75	50.25
MPHW	5.67	4.48	6.38	4.24	9.73	8.94	13.59	14.21	8.84	7.96
Residual MPHW	1.27	1.25	.89	.51	4.47	3.22	8.42	3.62	3.76	2.15
% corrected	18.4	14	36	24	22	20	4.0	11.8	20.1	17.45
% sem. acceptable	67.3	64	74	70	42	58	36.0	68.6	54.8	65.15
% sem. unacc. but corr.	10.2	8	12	18	12	6	2.0	5.9	9.05	9.47
Comprehending percent	77.6	72	86	88	54	64	38.0	74.5	63.9	74.62
% syn. acceptable	73.5	70	82	78	54	80	58	80.4	66.87	77.10
Proximity means										
graphic	5.24	5.76	4.59	4.64	4.98	5.95	4.59	4.03	4.85	5.09
phonemic	5.32	5.24	4.37	3.91	4.55	6.19	4.32	4.03	4.64	4.84
syntactic	7.40	7.57	6.37	7.05	7.46	7.70	7.27	7.05	7.12	7.29
semantic	7.03	6.76	6.62	7.47	7.41	7.10	6.42	6.39	6.87	6.93

* Freddie Miller, Scientist

** Little Brown Hen

Virginia, with the lowest IQ score (91), has the highest reading achievement test rating (4.4) and is closest to Darnell's patterns. Her residual MPHWS are 1.27 and 1.25.

As a group, percent of dialect is 27.15 on S51 and 29 on S72. Miscue dialect features occurred in the following frequency order:

Table 5-9

DIALECT FEATURES:
MISSISSIPPI BLACK FOURTH GRADE GROUP

	<u>S51</u>	<u>S72</u>
Verb <u>-ed</u>	25%	19%
Noun Plural <u>s</u>	15%	23%
Noun Possessive <u>s</u>	11%	11%
<u>Be</u> deletion	4%	3%
Verb <u>s</u>	1%	5%
Non-inflectional <u>s</u> (alway)	4%	0
Adverb <u>-ly</u> deletion	3%	0

Examples of dialect features include:

Verb forms:	come/came say/said	grewed/grown keep/kept	was/were
Lexical:	worser/worse	much/many	Mom, Mama/Maw

Semantically acceptable miscues ranged from 36% to 74% on S51 and 58% to 70% on S72. One subject, Cheryl, had 36% on S51 and 68.6% on S72. She had relatively few corrections so her comprehending is 38% and 74.5%, respectively.

Correction ranged from Cheryl's low of 4% on S51 to Darnell's 36% on the same story. Group average percent corrected was 20.1% for S51 and 17.45% for S72.

Comprehending percents were 38% to 86% (mean 63.9%) for S51 and 64% to 88% (mean 77.62%) for S72. Though only Cheryl had substantially less difficulty with the culturally relevant story, S72, all had at least slightly lower residual MPHWS (See Table 5-8). The group's 2.15 RMPHW was substantially lower than the 3.76 RMPHW for S51.

Syntactic acceptability is 70-82% for each fourth grade reader, except two subjects on S51, who had 54% and 58%, respectively.

Graphic proximity means range from 4.03 to 5.95 with three of the four having somewhat lower means on S51 than S72. The range on S51 was small, 4.59 to 5.24. Ranges on phonemic means were wider, 3.91 to 6.19 and phonemic means for the group were slightly lower than graphic on both stories.

In S72 the Mississippi fourth graders correct 17.4% of their miscues and are unsuccessful in 8.0% of their attempts. In S51 they correct 20% and have 9% unsuccessful attempts. They correct or attempt to correct more than half of miscues acceptable only with prior syntactically or semantically on S72. In this story, higher percents of miscues that are unacceptable syntactically are corrected (22.7%) than the fully acceptable miscues which are corrected (11%). In reading S51, corrections are highest syntactically and semantically acceptable with prior, but fully unacceptable miscues are not corrected at higher rates than fully acceptable ones.

This group shows a tendency to correct miscues with low phonemic proximity between ER and OR. In S72, one third of miscues that are corrected have no similarity (14.3% of all miscues fall in this category). About half of all miscues with low proximity (0-3) are corrected successfully or unsuccessfully. This pattern is not as clear on S51, partly because there are higher portions of miscues with moderate (4-6) proximity. Only 13% of corrections have no phonemic correspondence, while 35% of those corrected have common beginnings. Such miscues are 21% of all miscues. Still, of the 37 miscues with low proximity (0-3) 10 are corrected and 8 successful attempts to correct are made.

In S51, MB4 correct disproportionate numbers of function words and indeterminates and less than proportionate numbers of nouns.

Corrections and unsuccessful corrections are disproportionately high on verbs (50%) in reading S72.

Mississippi Black Second Grade

The MB2 subjects read Kitten Jones, S44, and Clever Turtle, S71, an African folk tale with a plot much like B'r'er Rabbit in the Briar Patch. Each subject found S71 less difficult than S44. MB2 had more difficulty with S44 than any other of the six groups that read it.

Of the two stories, S71 produces lower total MPHWS for all subjects, higher comprehending scores for three of the four, and lower residual MPHWS for all.

The amount of dialect is moderate and relatively equal on both stories; about 12% for the group with a range from 5.6 to 16.9%. This is, of course, much lower than the 28% of both the fourth graders and sixth graders overall. The contrast is not quite so sharp in dialect

Table 5-10

MISSISSIPPI BLACK SECOND GRADE GROUP STATISTICS

Subject Number Story Number	301		302		305		307		GROUP MEANS	
	44*	71**	44	71	44	71	44	71	44	71
Total Miscues	130	63	153	60	120	60	141	48	136	57.8
Coded Miscues	54	56	54	56	59	60	57	48	56	55
MPHW	19.35	16.28	20.53	16.62	18.79	15.35	20.96	12.28	19.9	15.1
Dialect Miscues	8	6	3	4	10	9	7	6	7	6.2
MPHW	2.87	1.74	1.14	1.19	3.18	2.3	2.57	1.53	2.4	1.6
Percent	14.8	10.7	5.6	7.1	16.9	15	12.3	12.5	12.4	11.3
Non-Dialect Miscues	46	50	51	52	49	51	50	42	49	48.75
MPHW	16.49	14.53	19.39	15.43	15.61	13.04	18.38	10.74	17.4	13.4
Residual MPHW	10.39	5.52	9.51	9.20	6.37	4.86	8.82	3.58	8.7	5.8
% corrected	8.7	2	7.8	5.8	24.5	11.8	30.0	16.7	19	9
% sem. acceptable	30.4	60	47.1	38.5	40.8	52.9	28.0	61.9	37	53
% sem. unacc. but corr.	6.5	2	3.9	1.9	18.4	9.8	24.0	4.8	13.2	4.6
Comprehending percent	37.0	62	51.0	40.4	59.2	62.7	52.0	66.7	50	57.9
% syn. acceptable	65.2	70	66.7	55.8	53.1	64.7	46.0	73.8	57.7	66.0
Proximity means										
graphic	4.85	4.05	5.19	4.45	4.47	4.41	4.63	5.22	4.78	4.53
phonemic	4.00	3.79	4.96	3.12	3.70	4.67	4.16	5.11	4.20	4.17
syntactic	7.42	7.46	8.12	8.06	7.85	7.50	6.91	7.35	7.57	7.59
semantic	5.94	6.20	6.50	6.22	6.05	4.93	6.36	6.27	6.21	5.90

* Kitten Jones

** Clever Turtle

MPHW across grades. Second graders produce 2.44 on S44 and 1.69 on S71; fourth graders have 3.66 on S51 and 3.36 on S72. Sixth graders average about 3 dialect MPHW on the two stories.

Relatively more second grade miscues are produced, but relatively fewer of them involve dialect. Coded non-dialect MPHW on S44 averages over 17 MPHW; for S71 it is over 13 MPHW. Including dialect, coded MPHW soars to 19.9 and 15.1.

All but MB302 had a higher comprehending score on S71 than S44. Except for her, each had over 60% comprehending on S71, MB301 has 62% on S71, but only 37% on S44.

Residual MPHW is lower on S71 (3.58-9.2) than on S44 (6.37-10.39) for all subjects although MB302 has only a slight difference (9.2, 9.51). Mean for the group shows a substantial difference, 5.8 residual MPHW on S71 as compared to 8.7 on S44.

Correction percents are quite low except for two subjects on S44; MB305 corrects 24.5% and 307 corrects 30%. Range on S71 is 2-16.7% (mean = 9%) and on S44, 7.8-30% (mean = 19%). By contrast unsuccessful correction is relatively high on S71, 6-26% (mean = 14%) and on S44 the mean is 15%.

Comprehending scores tend to reflect moderately high semantic acceptability, particularly on S71, but low successful correction rates. There are some extreme examples: on S71 MB301 has 60% semantically acceptable but only 2% corrected on the same story. MB307 shows 62% semantically acceptable and 16.7% corrected, but only 5% were unacceptable and corrected. Comprehending ranges from 37-59.2% on S44 (mean 50%) and 40.4-66.7% on S71 (mean 57.9%); comprehension scores range from 20-31 on S71 and 20-37 on S44. Comprehending and comprehension are actually negatively correlated (-.51, and -.67, respectively) though not significantly so because of the N of 4.

Semantic acceptability is sharply contrasted on the two stories for the four readers in MB2. For S44 and S71, the percents are MB301, 30.4/60; MB305, 40.8/52.9; MB307, 28/61.9; MB302 reverses this trend with 47.1/38.5. As a group semantic acceptability shows a strong compounding effect of miscues in the same sentence. On S71 only 12.6% are fully acceptable in the passage; 14.6% are acceptable in sentence only; 12.6% in the sentence except for other miscues, and 11.6% in the passage except for other miscues. In S44, 13.5% are fully semantically acceptable, 10.5% sentence only, 4% sentence except for other miscues, and 8.5% passage except for other miscues.

Syntactic acceptability shows less contrast between the two stories except for MB307 who has 73.8% and 46% on the two stories. The compounding effect is lessened also. In S44, 41.6% are fully acceptable in the passage syntactically, 14.7% are acceptable in the passage except for other miscues. Only 1.5% are acceptable in the sentence only. Figures are similar for S71: 41.4% fully acceptable, 19.2% acceptable except for other miscues.

Most of MB2 miscues are real word substitutions. Omissions are only 2.5% on S71 and 5.8% on S44. Non-word substitutions run slightly above 7% for both tasks. Peripheral field involvement is 10.1% on S71 and 14% on S44.

MB302 shows an unusual pattern on S44 with over 19 non-dialect MPHWS and 9.5 residual MPHWS.

Here is an excerpt from MB302 (Pamela) reading Kitten Jones (S44):

0407 She began to ^{search} sniff at it. She ^{search this} sniffed at its

0408 sides and its ^{this} ^{corn} ^{corners} corners. She ^{tumble da} thumped the

0409 ^{crouch} ^{cr-} ^{wif} camera with her white ^{fuzz} fur paw.

0410 Sue came out just ⁱⁿ in time to see Kitten

0411 playing with the camera. ^{wif} ^{da} ^{scout}

0412 ^{who} "Oh, Kitten," she cried. ^I "I'm afraid you

0413 have done ^{so-} ^{some things} something to this picture. ^{You} I'll have

0414 the ^{da} to turn it to the next one. Now ^{sand} ^{sad} ^{1. so} stand still

0415 here by the ^{ro-} ^{rose} vines. I'll take a picture of ^{for}

0416 you"

0417 Mr. Jones ^{fishing} finished ⁱⁿ the pictures himself. He

0418 ^{pinded} ^{dem} ^{upstairs} printed ^{dey} ^{upside} them ^{up} upstairs in his darkroom.

0419 All the family stood around him ^{flowers} ^{sooned} about ^{then he} when the

0420 ^{trails} ^{1. was} ^{2. there does} prints were done. Now ^{4. munched} ^{3. munched} ^{2. punches} ^{1. pu} How they laughed at some

0421 ^{da} of the pictures ^{da}

7. smell
6. smile
5. 2-
4. sow
3. t-
2. sowt
1. so

5. munched at some..
4. How they munch
3. There does
2. punches
1. trails were done. Now they
pu -

- 0501 One picture showed ^① a large black ^② corn wif ^③ with
^{2 pinch}
 0502 a long ^④ piece of string in his ^{ball} bill. He was
^{pick}
 0503 ^{starting the} standing on a rock in the rose garden.
 0504 "It's ^⑤ the best ^⑥ picture I've ^{I've} ever saw!"
 0505 ^{2 expression} ^{1 ec-} exclaimed Penny. Know careful ill you
^{pick} "How clear it is!" You can
 0506 see every ^⑦ father feather on that bird. You can
^{fa-}
 0507 ^{imagine} almost ^⑧ corn count the ^{father} feathers."
^{corn}
 0508 ^⑨ At this "It is a good picture," said Mr. Jones
^{this}
 0509 "Who took it?"

Pamela shows strong word focus in this excerpt, yet she is also showing all aspects of the reading process. Her dialect is, of course, evident too. The latter shows in phonology: wif/with, jus/just, da/the, dem/them. It shows also in syntax:

It bes I've
 "It's the best picture I ever saw!" (line 0504)

She shows many unrelated real word substitutions, which retain syntactic functions: line 0407 - search/sniff; 0409 - pay/paw; 0417 - fishing/finished; 0419 - flowers/family; 0420 - trials/prints; 0501 - corn/crow; 0502 - ball/bill; 0503 - starting/standing; 0505 - careful/clear; 0506 - father/feather. All of these also have phonemic and graphic features in common. Pamela seems to have a strategy of looking for real words that fit the syntactic, graphic, and phonemic constraints if not the semantic ones. Her graphic and phonemic means are close on S44, 5.19 and 4.96 which are high for the group and much higher than on her reading of S71.

She produces some real word substitutions that are not syntactically equivalent, too. Examples are: 407/408 this/its; 409 fuzz/fur; 412 who/oh; 412 after/afraid; 414 sad/stand, so/still; 415 very/vines; 418 upside/upstairs; 501 lamp/large, etc. These seem to show the dominance of her word-boundness: she wants real words even if they don't fit the syntactic and semantic constraints.

Very few of her miscues show no graphophonic relationships: 420 trials/prints (though on 418 she had already tried \$pinded for printed); 420 munched/laughed (end is common graphically). Examples such as the/a (503) and know/how (420 and 505) have phonemic or graphic features in common, but not both.

She works at words and sentences. On line 0414 she makes seven full or partial attempts at still: so, \$sowt, t-, sow, t-, smile, smell. On 502 her attempts at piece are pick, pi-, pinch. Two partial attempts precede her substitution of imagine for almost in 507. On line 508 for It is she tries: At this, at, at, and then finally it is. In reading line 420 she seems to wander in a maze: 1. trials was done. Now they pre-, 2. punches there does. How they munch, 3. munched at some of the picture.

Her word focus sometimes produces strange sequences that have neither sense nor grammar:

expression^{*} Penny know careful it ill you can
0505 exclaimed Penny. "How clear it is! You can

Yet she is using all the cue systems; she predicts, corrects, perseveres seeking words and meaning. It may be hard to believe that she is seeking meaning from her miscues, but here is her free retelling:

Jack, Jack, Ann and the little kitten they wanted to win a contest and, and, and they, they won because the kitten took the pictures and the man axed "who took the pictures?" and they answered and, then it went on until they won the contest. And then, and then they said that they, they, their kitten liked the ball the best, best of all.

Though she only reads camera correctly once in the story, she responds to the question "How did the kitten happen to take the picture?":

The camera was layin out and he was playin wif it. He didn't know what he was doin and he sti- and he made them win

She describes Kitten Jones:

He was a kitten and he was white - had a bow around his neck and he was fuzzy

What was funny?

"Bout the kitten...when the kitten took that picture and I know a kitten couldn't take no picture."

No one could argue that Pamela has the reading process together, that she's either efficient or effective. But she is able to coalesce meaning from her reading even with compounding miscues, non-productive strategies, and word preoccupations. She is actively seeking meaning and that's a powerful strength.

MB2 has some quite low means on graphic and phonemic proximity between ER and OR. Phonemic proximity falls below 4.0 in three cases. Pamela has the low of 3.12 on S71 and almost 40% of her miscues with no sound or only a single sound in common. Twenty-five percent have beginning only in common. She appears to be using much more graphic than phonological features.

Mississippi Black Sixth Grade

In our discussion of the MB6 group we can draw on the related doctoral study of Patricia Rigg, who compared our MB6 subjects to urban Black subjects also reading the standard story, S53, My Brother Is A Genius. This is particularly useful because Rigg did a depth analysis of some of the dialect features of the two groups of Black readers in reading and in retelling.

In her dissertation, Rigg analyzes and compares the oral reading miscues generated by the MB6 readers from rural Port Gibson, Mississippi and sixth grade Black English (BE) dialect speakers from urban Detroit, Michigan.

The urban group is compared to the rural group in terms of the percentage of dialect involvement in their oral reading miscues, as well as the occurrence of specific dialect features in their retellings and in the first 50 lines of their oral reading.

Approximately one-fourth of the miscues produced by each group are determined to involve BE dialect. Of these dialect miscues, the great majority (80% rural group, 73% urban group) involved inflectional suffixes. These miscues were rarely corrected; 90% of the dialect miscues produced by the rural groups and 88% by urban groups are not corrections nor attempts at correction. Both groups produced similar amounts and types of miscues. "The differences between the groups are insignificant with respect to percentage of dialect miscues, number of dialect miscues corrected and not corrected and number of dialect miscues involving the substitution of inflections" (Rigg, 1974, p. 55).

However, two differences between the groups are noted. None of the MB6 subjects produce super-correct dialect forms, such as \$backeded, while two urban subjects do produce such forms. As super-correct forms are not acceptable in the dialects spoken by either group, the occurrence of these forms in the urban subjects' reading may be attributed to instruction; that is, an over-emphasis on the pronunciation and phonic analysis of inflectional endings. It is interesting to note that super-correct forms never appear in the subjects' speech (during retelling).

Another difference between the groups is the number of miscues determined to be "dialect doubtful". These miscues are suspected but not clearly determined to involve dialect. The urban group produced twice as many such miscues as the rural group.

Table 5-11

MISSISSIPPI BLACK SIXTH GRADE GROUP STATISTICS

Subject Number Story Number	322		326		328		329		GROUP MEANS	
	53*	73**	53	73	53	73	53	73	53	73
Total Miscues	200	280	177	232	199	233	219	238	199	246
Coded Miscues	81	70	67	62	65	79	66	70	69.8	70.3
MPHW	8.59	12.20	7.9	10.80	10.78	10.93	7.87	12.48	8.8	11.75
Dialect Miscues	29	21	15	12	16	29	16	20	19	23
MPHW	3.08	3.66	1.77	2.09	2.65	4.01	1.91	3.57	2.37	3.35
Percent	35.8	30	22.4	19.4	24.6	36.7	24.2	28.6	26.8	28.8
Non-Dialect Miscues	52	49	52	50	49	50	50	50	50	49.75
MPHW	5.51	8.54	6.13	8.71	8.13	6.92	5.96	8.91	6.42	8.25
Residual MPHW	2.01	4.36	2.12	4.18	2.32	2.77	2.38	4.99	2.2	4.1
% corrected	15.4	16.3	26.9	14	24.5	8	28	14	23.8	13.1
% sem. acceptable	53.8	34.7	44.2	40	61.2	54	46	32	51.3	40.2
% sem. unacc. but corr.	9.6	14.3	21.2	12	10.2	6	14	12	13.8	11.1
Comprehending percent	63.5	49	65.4	52	71.4	60	60	44	65.1	51.3
% syn. acceptable	69.2	59.2	67.3	80	77.6	68	68	66	68	68.3
Proximity means										
graphic	5.98	5.68	5.00	5.48	4.26	4.43	5.82	5.34	5.26	5.10
phonemic	5.68	5.26	4.58	5.35	4.55	4.21	5.61	5.39	5.10	5.05
syntactic	7.28	8.47	7.80	8.38	6.84	7.62	7.38	8.88	7.32	8.33
semantic	6.21	7.68	6.61	7.40	7.27	7.56	6.39	7.06	6.62	7.35

* My Brother Is A Genius

** Roughing It

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Although no major differences exist between the two groups, individual differences do exist. The reader with the lowest percentage of dialect miscues is an urban dialect speaker while the highest percent of dialect miscues is generated by an MB6 subject.

The retellings of both groups were analyzed to determine the appearance of particular BE dialect features in their speech. In comparing the two groups in this regard, differences do emerge, although generally, the use of BE features is similar. The only decided difference between the groups is in noun marking. Nineteen percent of the plural nouns produced by the rural groups have a null marker ($\emptyset$ a Black dialect feature) such as side for sides, while only 2% of plural nouns are marked $\emptyset$ by the urban group. An even greater difference is found for possessive nouns such as Mr. Baraby eyes for Mr. Barnaby's eyes. Sixty-one percent of the possessive nouns are marked $\emptyset$ by the rural group, while none of the possessive nouns were marked $\emptyset$ by the urban group. While a difference in most verb markings such as pace for paced; come for came; took for taken also exists (the rural group is 10% higher than the urban group) this is not as pronounced as that of noun marking. The two groups are similar in their use of the other dialect features analyzed, such as present and past perfect, third person singular marking, use of copula be, double subject, negative concord, embedded questions and dummy (it) subjects.

The mean percentage of BE features in the oral retellings for the rural group is 20.7%, and 16.5% for the urban group. The oral reading of the first 50 lines of the text by both groups is analyzed and compared, for their use of the following BE dialect features: The grammatical marking of 1) regular plural; 2) possessive; 3) -ed; 4) third person singular; 5) be; and 6) all final consonant clusters ending in phonemes /z, s, d, t/.

Several differences emerge between the two groups' production of the above features. The MB6 group generally shows a greater tendency to reduce final consonant clusters than the urban group. Unlike the urban group, the rural subjects didn't show any significant preference for reducing non-grammatical clusters such as min' for mind as opposed to yell for yelled. The rural group was more likely to treat -id endings as $\emptyset$, thus producing more substitutions such as shout for shouted. The rural group as well as the urban group reduce more voiced fricatives, such as camera for cameras, than unvoiced, such as light for lights, and show some tendency to reduce /d/ and /t/ clusters, such as walk for walked and cry for cried, followed by consonants more than those followed by vowels.

There is also a greater incidence of BE features for grammatical markings among the rural subjects than the urban subjects in the reading of the first 50 lines of the story.

The incidence of BE dialect features in the reading was compared to the incidence of these features in the retelling.

The results indicate that there is more of a tendency to produce $\emptyset$ forms in the reading than in the retellings for both the urban and rural groups. There are some exceptions to this tendency. The incidences for possession and third person singular by the rural group are greater in retelling than in the reading, but there is not enough data to make these findings valid. There is a tendency for more $\emptyset$ plural markers to occur in reading than in retelling. There is also the case for $\emptyset$ past and past participle markers. The MB6 group shows this same tendency with marking of contracted be: 17% are $\emptyset$ forms in their reading, while only 8% are $\emptyset$ forms in their retellings. Rigg points out that these findings are contrary to the findings of William Labov in his study Social Stratification of English in NYC (1966), in which a greater incidence of dialect features was found in oral reading. She suggests that this discrepancy between her research findings and those of Labov may be due to the age difference between the subjects (Labov used adult subjects), the nature and length of the reading material used or the subjects' conceptions about the nature of the task (Labov asked subjects to read "as naturally as possible", Rigg's subjects were told that they would be retelling the story). Future research will be needed to resolve this issue.

The retellings of one white sixth grader in the same school as the MB6 group (MW325) was compared to the MB6 group and to a particular subject in the group (MB328) of comparable age, social class and retelling score, for incidence of BE dialect features. There were some similarities and some differences. The greatest difference was the absence of $\emptyset$ markers for plural nouns and possessive nouns in the retelling of MW325, while 19% $\emptyset$ plural markers and 6% $\emptyset$ possessive markers are present in the retellings of the MB6 group. This difference is even more pronounced in past tense markers, for which no $\emptyset$ markers are found in MW325's retelling, while 38% $\emptyset$ past tense markers are present in MB6 retellings. MW325 uses 16 forms of be, none of which were $\emptyset$ or noninflected, and 12% of which did not follow standard English subject-verb agreement. The MB6 comparable percentage is 6% or half of 325's percentage. The white rural subject produced a greater number of double subjects and negative concord than MB6. There were no dummy (it) subjects present in the retelling of the white subject, but one embedded question with subject auxiliary inversion was noted.

Thus, MW325 does produce some features common to BE in the retelling, while others are not present. It is interesting that for some dialect features, such as negative concord and double subject, the white subject has a higher percent of occurrence than do the MB6 readers. Rigg points out that the white rural subject's dialect resembles, in some respect, that of the Black Detroit urban subjects more closely than that of the MB6 subjects in regard to noun markers and be forms. However, for double subject and double negative, MW325's production exceeds that of the Black Detroiters as well.

In comparing MW325 to MB328, the percentage of T-units (minimal terminal units) regarded as standard English is similar for both subjects: 88% for MW325, 80% for subject MB328. One hundred percent of the non-standard English T-units are characteristic of BE. Again,

double negative and negative concord are greater in the retellings of MW325 than in MB328. MB328 produces $\emptyset$ markers for plurals or possessives while the white subject does not.

Rigg concludes from the above analyses that some dialect characteristics of BE may, in fact, not be exclusively characteristic of that dialect, but may be part of a regional social class dialect of which this and other White children are speakers. However, the differences between the White subject and the Black subject (who share the same social class, school environment, etc.) may be interpreted as distinctions specifically between Black and White.

Thus, Rigg finds dialect differences do occur between races in rural Mississippi and between Northern urban and Southern rural Black readers.

The MB6 group has 28.8% dialect on S73, Roughing It, compared to 26.8 on S53, the standard story (see Table 5-11). MPHW with and without dialect is considerably higher on S73; non-dialect is 6.42 on S53 and 8.25 on S73. Semantic acceptability, correction percent, comprehending percent are all higher on S53. Syntactic acceptability is near 68% on both stories. Residual MPHW is 2.2 on S53 and 4.1 on S73. Only MB328 shows a different pattern. He has 37% dialect on S73, compared to 24.6% on S53; non-dialect MPHW is near 7 on S73 and better than 8 on S53, but with much higher correction on S53 (24.5% compared to 8%). He has higher semantic acceptability, 61.2 compared to 54% and the resultant comprehending percent is 71.4 compared to 60. Residual MPHW is 2.32 compared to 2.77. Graphic and phonemic means are similar for both stories. Semantic and syntactic change on acceptable miscues are less on S73 than S53.

MB6 corrects more successfully on S53 than S73. For three of the four subjects, unsuccessful and successful corrections are about equal on S73. The group mean is 13% corrected and 10% unsuccessful attempts. Only MB329 has no unsuccessful attempts, but she has only 14% correction. MB322 has similar correction patterns on both stories: about 32% attempted correction divided about evenly between successful and unsuccessful attempts. The other three have more attempts and more success on S53. The main difference in what gets corrected in each story is that in S73, 30% of the miscues syntactically acceptable with prior text and 26% of those semantically acceptable with prior are corrected. In S53 over 47% of both types of miscues are corrected.

The group omits more words on S53 (11.4% compared to 6.8%) and has more non-word substitutions on S73 (16.1% and 12.3%). MB328 has higher than average rates of both insertions and omissions on both stories: 15% of each on S53; 11% of each in S73.

Here are some examples of her miscues from S73:

Omissions:

...it was even light out. (line 0202)

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...sycamores leaned out over the water... (line 0410)

...waiting for us ^Cwhen we got there, (lines 0523, 0524)

...into the tent (line 0528) We talked for a while...(line 0601)

...half in and half out...(Line 0602)

...still dripped off the trees. (line 0604) ...out of ^{the}a bag. (line 0805)

...like I was going to do something. (lines 0809, 9810)

^CAnd
... I made a pulling gesture...(lines 0817, 0818)

...straighten out like something was pulling...(lines 0823, 0824)

...came out ⁱⁿof ^{the}his bag and an extended finger...(line 0825)

...across me, across my neck. (line 1013, 1014)

...and had pulled the weenies ..(line 1016, 1017)

^Cfor that, just wait and see." (line 1217)

Insertions:

...sat him up ^{the}in [^]bed (line 0204) ...a lot of do's and ^{you}don't [^]us (line 0512)

...ⁱⁿon [^]to one of my plugs.(line 0514) ...so that they ^{would}rest ed...(line 0817)

I never knew ^{that}they could do that. (line 1020)

Bud, wouldn't ^{you}even look...(line 1108)

^CShow the snake ^{how}to Caleb,...(lines 1207, 1208)

...seemed to ^{be}quiet Andrew...(line 0219) ...in my ^{brother's}brain. (line 0306)

...as soon as ^{the} ~~as~~ classes let out...(line 0310)

I read a lot so ^{of things} the time would go... (line 0701, 0702)

...Andrew was ^{fast} ~~as~~ asleep. (line 1014)

"then ^I ~~don't~~ think of it as ^{a babysitter} ~~babysitting~~." (S53, line 0102)

MB328 also has the most peripheral field miscues on S73, 26.6%; her 18% on S53 is also high for the group. That fits with her tendency to insert. She also has the lowest percent of non-words in the group on the two stories.

The Hawaiian Pidgin Group

Our Hawaiian Pidgin subjects are cosmopolitan in the Hawaiian sense; they are of Asian, Polynesian, European, Black and mixed ancestry. They live in a federal housing project not far from downtown Honolulu. Their home language is Hawaiian Pidgin, which is technically not a pidgin, but a creole in linguistic terms. A pidgin is a trade language which emerges from the need for people speaking different languages to communicate. Hall (1966) says that pidgins sharply reduce "pronunciation, grammar, and ... vocabulary ... in the direction of ... features ... common to the languages of those using the pidgin" (pp. 25-27).

When a pidgin becomes the first, home language of its users it becomes a creole. Again Hall (1966) says "the main change is in the direction of re-expansion of both structure and vocabulary" (pp. 129-130).

The creole of Hawaii, which we'll call by its popular, though linguistically inaccurate, Pidgin, has expanded with much of the vocabulary of Hawaiian standard English (HSE) while retaining many non-English terms and features.

Pidgin is less like mainland dialects than mainland dialects are like each other. The Pidgin of Hawaii, though changing, is remarkably resilient. In spite of public opinion and teacher effort, it remains the language of the island home. Island children seem to learn to understand HSE and eventually, to use it as an alternative to Pidgin where HSE is more useful.

Both the public and the private schools in the past in Hawaii have tended to regard Pidgin as a kind of non-language and to show little respect for its use and its users. Hawaii, for many years, had "standard English" high schools and screened out those without productive control of HSE (or what they regarded as mainland English).

Even studies of Pidgin in the 30's and 40's treated it as crude non-language. Reinecke (1936), a prolific writer on Pidgin, characterized it as the "crudest" form of English spoken in Hawaii (Reinecke, 1936).

He described it as having "extreme simplicity of syntax", "wholesale confusion of ... tense, number, person", "wholesale omission of particles and other words" (Reinecke and Tokimase, 1934).

One author found 38% of the freshmen at the University of Hawaii had speech "too poor to be allowed to graduate" (Brigance, 1938). In 1940, all teachers had to take a course correcting dialect errors (Beck, 1940).

Wilson found Pidgin the chief hindrance to clear English and blamed teachers who "themselves were so deficient" for not placing emphasis on clear, intelligent thought (Wilson, 1937).

A new day was heralded in the mid-sixties by Nunes (1965) in her article, "Pidgin is a Good". She called for bidialectalism and a scientific linguistic approach to Pidgin in Hawaii's schools.

The turn to bidialectalism and oral-aural approaches led to contrastive analyses of Pidgin and HSE (Crowley, 1971).

Early studies of Chinese, Japanese, and Filipino children by Madorah Smith and later follow-up showed that between 1938 and 1958, bilingualism had disappeared and was replaced entirely by Pidgin, now the customary home language (Smith, M.E., 1957; and Smith & Kasdon, 1961).

Carr (1972), in a more recent book, *DaKine Talk*, traces 3 stages of development to modern "neo-pidgin" of current use, as "typical of the Islands as flower leis and pineapples". It contains Hawaiianisms (as does HSE) such as puka (hole), kapu (tabu), and pau (done), but also current mainland teenage slang.

Some characteristics:

1. Falling intonation in yes-no questions
2. Syllable timed rhythm
3. Explosive stop consonants
4. Auxiliaries in place of inflectional suffixes: stay (I stay walk); progressive been or wen (I been walk); past perfect (I wen walk); past go, gon, (I go walk) future
5. Deletion of plurals (sometimes)
6. Reduction of final consonant clusters: las', firs', en', nes'
7. in → in, as in goin'
8. shift of d → /j/ before r
dream - /j/ream
t /ɕ/ before r tray - /ɕ/ray
str → /scr/ street = /sc/reet

According to Carr's analysis, modern Pidgin is more likely to use inflectional endings (sometime with auxiliary - he stay walking); one and the are used interchangeably for the.

There are some vocabulary items in Pidgin that are unique and some that involve shifts: gave becomes get, want becomes like, for example.

An Hawaiian Pidgin Fourth Grader

Dina (HP812) is a girl with cosmopolitan ancestors, some of whom were native to the Hawaiian Islands. She lives in Honolulu in an inner city housing project. Her parents were born on the neighbor island, Maui. She has two younger sisters and an older brother she compares to Freddie Miller in one story she read:

"Sometimes my brother bad. Mommy lick him. He blame me."

Dina's home language is Pidgin. Her retelling shows shifting between Hawaiian Standard and Pidgin forms.

Dina's test score at the end of third grade showed 25th percentile in reading (WRAT) and 78 in IQ (6th percentile on PPVT).

Here is her retelling of Freddie Miller, Scientist:

Researcher: Tell me what you remember about the story, Dina.

Subject: Um, he was trying to do experiments with some kind of, um, medicine, but, and den he made, he did it on his sister's dolly and den he try to fix his father's clock and den he made a mistake and came to tree o'clock, and den...

R: He made a mistake and what?

S: He made a mistake and da clock, um, he said he turn 'em to seven tirty but when da ting wen' ring was, um, tree o'clock. And then, and den he, um, den, his, his mother said he, he's jus' like his Uncle Oscar, his Uncle Charlie, his Uncle Augus(t), his Uncle, um, his Uncle...his Uncle Oscar, his Uncle...uh, his Uncle... ..I forget.

R: Maybe you'll think of his name later. That's OK. Tell me other things you remember. He was just like all his uncles.

S: Yeah. And den his mother, after when, he got his sister out of da closet, his brother out of the closet, Elizabet, and den his mother and father felt proud of him. Den dat was da en'.

R: Um hmm, Um hmm... ..OK. He got his sister out of the closet. Can you tell me more about that?

S: And he...He saw some tape, he saw some wire, he saw a ruler, and he saw some batteries. And he, and den he saw, um, da's all. And den he tape, he put da batteries touched togedda and he wind 'em around and he run to da, da wire and he touched from the, across end to end. And den afta he had a lightbulb and he gave da ruler to his sister and he told his sister to catch, no, to hold da ruler. And den she say, "It's better now. It's not so scary."

R: Um hmm. How'd he get it to her?

S: Trough da trainsome...he gave it to her in her hand.

R: Do you know what that is...the trainsome? What do you think it might be?

S: Um, someting on the top, and get the,um, get on the door and you pull 'em up.

R: Something in the top? Something in the top where, Dina?

S: On the top of the roof and, and da, you know, and, and then she got, and then he opened da, get da window light and he opened 'em and den he gave 'em.

R: Do you think you've ever seen something like that? Where did you think you have seen one?

S: In one pitcha.

R: In a picture. OK. All right. Then, uh, how did she feel then?

S: Not so scared, cause she had some light.

R: OK, and then what happened?

S: Then the brother wen' call his mother, den then, the... brother...Freddie told da story and da...Elizabet told da story and Mrs. Miller told the story.

R: Oh, they all told the story? Who'd they tell the story to?

S: Mr. Miller.

R: OK, and, uh, then, um, do you remember what happened then, after they told the story?

S: No.

R: You don't? OK. Do you remember how everyone felt about it?

S: Um, his mother felt, um, his sister and his...and father and, uh, Freddie tought his mother'd say he, he was always like his uncles, and he, den dey said, Freddie said, "I'm I'm just like my Uncle Oscar, hah?" and he made one face and den his mother sss-, laugh and she say was proud of him.

R: Um hmm. How did she let him know she was proud of him?

S: By the, um, by saying he wasn't like all of his uncles and by smiling.

R: What other things had Freddie done? Can you tell me more about Freddie?

S: He, he helped his sister get out of the, when she was stuck, he helped his sister get out. And he fixed his father's clock and he made some light for his sister for her not to be scary.

R: OK. Can you think of some other things he did? You told me about the clock, and you said something about his sister's dolly...Can you remember some other things he did?

S: Da light. He did dat.

R: He did the light. Um hmm.

S: He got his sister out of the stuck place.

R: The stuck place.

S: And he gave her some light, and da's all I remember.

R: OK. Um... ..

S: You borrow dis book from dis library?

R: No. Brought it with us. Um hmm. Um, OK, how would you describe Freddie? What kind of boy would you say he was?

S: He was some kind of boy, he, dat, he wanted to be, um, a worker and he wanted to do experiments like older men.

R: Right. OK. Do you know what a name might be for that kind of older man? (pause) Well tell me...

S: (interrupts) Grown up.

R: Grown up. OK. Um, what kinds of things did he work with, in his experiments?

S: Some kind of medicine...

R: OK.

S: ...was green. And he made his sister dolly's face green.

R: OK. Uh, how'd the family feel about his, um, experiments?

S: First dey felt mad, and den after dat dey felt happy, cause, cause he started da...

R: Why'd they feel mad?

S: Because he did all kind of tings and he, um, he did something to his sister's dolly, and den he, um, he did something wrong and he, he...yeah, he made one bell.

R: Um hmm.

S: He made one bell and, but he didn't finish 'em cause sister was stuck in the closet.

- R: That's right. OK. What was the bell for.
- S: To wake up his fadda.
- R: Uh huh. OK. Now you've told me alot about the story. Do you think you could tell me what the whole story's about in just a few words?
- S: Showed how Freddie can help his family. And, um, he can do experiments, and his mother and his father can be happy wit him if he don't do all kind of tings dat he not supposed to.
- R: If you don't do all kind of things. Explain that just a little bit.
- S: That if he, um, like, he made his sister's dolly face. green and his sister got mad at him. Den afta, at the end, he, den she got, uh, happy about him. And she didn't care about her dolly cause she, he got him out of da closet.
- R: Do you think the author's trying to tell us, tell you something in this story? Do you think he's trying to point out a lesson? What lesson do you think that might be?
- S: Um, that, um, about Freddie.
- R: Can you put it in words? Well let's try, just a little bit. About Freddie. You think there's a lesson about Freddie?
- S: Yes. He's trying to teach Freddie a lesson that it was good making experiments, but not wit his sista's dolly.
- R: OK. Do you know anyone like Freddie?
- S: My brotha.
- R: Is your brother like that? Tell me a little bit about that.
- S: My brother, when I go home afta school he jus fly my, he jus fly my sandals outside and he'll get 'em all crashed up. And den sometimes my mommy give me some scoldings cause, cause I leave 'em downstairs and I don't put 'em in my room and, um, sometimes I don't do my work. And I gotta water the plants, and I gotta, um, straighten the house and den I get to play wit my brudder and sista.
- R: OK. Sometimes your brother teases you. And then sometimes is your brother like Freddie?
- S: My brudda good, but sometimes my brother bad. Only my mommy lick him...he blame on me, you know.

- R: That sounds like older brothers. OK. Let's see, um, uh, when Freddie, um, made Elizabeth's dolly turn green, what did his mother say? Do you remember that? What did his mother want him to do?
- S: To, to save his allowance to buy his sister a new dolly.
- R: OK. Um, do you have an allowance yourself, Dina?
- S: No, only my allowance from my auntie. Yeah, I get some allowance. I get quarter allowance.
- R: OK. Um, was there anything in the story that you thought was funny?
- S: The, um, when Freddie, when, when, his mother said, "Freddie, you, you're jus like your Uncle Oscar." Dat was funny to me.
- R: OK. Was there anything that you thought was unhappy or sad in the story?
- S: When he made his sister's dolly face turn green.
- R: Un huh, uh huh, OK. Can you think of anybody else who was in the story?
- S: Freddie, Elizabet, Mrs. Miller, Mr. Miller.
- R: Can you tell me a little bit about Elizabeth? What do you, kind of a girl do you think she was?
- S: She was a cry baby and she was scary. And her brother told her, "I'll get some light." And she said, "I don't want to stay here by myself." And, um, I forget...and, um, she told, when his sister turned to green she got mad and she grumbled to his brother but when she got stuck in the cellar she started crying to him to get her out.
- R: What about Mrs. Miller?
- S: Mrs. Miller got angry too but den at da end she got happy, cause he did, he did someting, um, good.
- R: OK. Can you tell me anything about Mr. Miller?
- S: Mr. Miller heard da story tree times.
- R: OK. Can you tell me about what kind of person you think he is?
- S: He was not mean, but he was (pause) I don't know.

Dina shows numerous Pidgin influences in the retelling above:

Verb inflections:

past tenses	He try to fix when she ring and wind 'im around then she say he turn 'im to seven he run to the --
-------------	---

Pidgin Vocabulary:

<u>it</u> - 'im	turn 'im to seven You pull 'im up he opened 'im he gave 'im finish 'im
-----------------	--

<u>one</u> as determiner:	in one picture one face he made one bell
---------------------------	--

<u>get</u> for <u>have</u> :	I get quarter allowance he get the window
------------------------------	--

In her retelling of Royal Race she uses these Pidgin forms:

she is climb
he watching
he wen' race
he wen' cheat
he never liked
goin' be king
wen' ask me that

Most of Dina's non-phonological dialect in reading the two stories involves inflectional endings, primarily -ed deletions: pull/pulled, look/looked, thump/thumped, pick/picked, flash/flushed, drop/dropped, clap/clapped, crowd/crowded, guide/guided, pass/passed.

She has some possessive deletions: sister^s cries, Freddie^s mother. A plural form use of post becomes post/ⁱz/. She goes from himself to hisself.

As with other dialect groups, the most notable dialect features in Dina's reading are phonological and intonational. Pidgin has rhythms which differ considerably from mainland dialects. But she shows little tendency toward syntactic or lexical shifts in her reading.

Some phonological alternatives she uses regularly are represented in these substitutions /th/→/d/ as in the→de, that→dat, /th/→/t/ as in things→teengs, thought→tought, /i/→/iy/ as in him→heem, thing→teengs, final th to t as with→wit, youth→yout, without→widout, str→schr as in straight→schraight, stranger→schranger.

Consonant reduction also occurs: first → firs, cost → cos.

Dina's dialect miscues are 11.3 and 13.8% of her totals on the two stories, somewhat high for the group. The group means were 9.93% for S51 and 8.97% for Royal Race, S69.

Dina's reading of the standard story, S51, was more successful than S69, as was true for all but one of her group and all but one of the Hawaiian Samoans reading the same two stories. Her coded MPHWS were 7.75 and 12.21, respectively. Comprehending scores were 46.8% and 38%. Residual MPHWS were 3.65 and 6.53.

She corrected much more on S51 (21.3%) than S69 (8%). On the other hand, all of her corrections on the latter come on semantically unacceptable miscues, while only half of her corrections on Freddie Miller are on such miscues. She has a few unsuccessful corrections on both stories. With corrected partials, her corrections go to 26% and 10%.

Dina's retelling score is 44 on S51 and quite weak, 17, on S69. In the latter, she knows the story involves a race and she has a surface recollection of details.

In retelling S51, she showed a real grasp of the story, personalities, and even some subtleties. She was able to express a plot statement and a theme.

Dina's 36.2% semantically acceptable miscues on S51 show an unusual pattern: 19.1% acceptable in sentence only, 6.4% in the total passage and 10.7% acceptable except for other miscues in the sentence. Her miscues compound their effect by disrupting meaning of sentences with otherwise acceptable miscues.

The pattern is more pronounced in S69: 20% are acceptable semantically except for other miscues, 4% are acceptable in the sentence only, and 6% in the total passage. Forty-eight percent are totally unacceptable on S69, compared to 38% on S51.

Dina changes meaning on acceptable miscues more in S51 than S69. This is reflected in her tendency to substitute semantically unrelated words: 63% on S51 and 56% on S69.

Dina's syntactic processing is more successful than her semantic patterns. Only 12.8% and 22% are completely unacceptable. The compounding effect of miscues on each other shows in the syntactic aspects, too. In S51, 57.4% are fully syntactically acceptable while another 10.6% would be, except for other miscues. In S69, the figures are 28% and 34%. In both cases, over 60% of all miscues are syntactically acceptable, but in S69, more than half of those are confused by other unacceptable miscues.

About 25% of Dina's miscues involve intonation. These reflect some problems she has with larger syntactic patterns involving sequences of clauses. Almost all her bound morpheme miscues involve inflectional suffixes -- substitutions, insertions and omissions. Her word substitutions are usually single morphemes substituted for single morphemes, though she had 20% non-word substitutions in S51 and 11% in S69.

Dina's graphic and phonemic means are lower on S51 than on S69. She conforms more closely in sight and sound in the story she found more difficult. That's a common pattern. In both stories she has substantially higher graphic means (5.13, 5.67) than phonemic (4.65, 4.97). That's also not unusual for most readers, though the others in her group had much closer graphic and phonemic means. There are no signs of phonics problems, dialect related or otherwise.

Dina rarely produces more than a single non-word when she encounters a problem. She tends to substitute real words that are similar: heart/heard, coach/couch, other/outer. She will sometimes work at syntax:

(S) his coming
 (C) his coming
 hi-
 his coming was signalled (S69, lines 0719, 0720)

5. If you are
 1. are carefully

If you ^{ca-}are careful... (S69, line 0928)

2. who fixed
 1. who the mir

who had fixed... (S51, line 0327)

In summary, Dina shows no indication that her Pidgin language base has any particular effect on her development as a reader. Her dialect certainly shows in her reading and retelling, but does not appear to be related to any limitations or her comprehension.

Hawaiian Pidgin Fourth Grade

Hawaiian Pidgin fourth grade readers show considerable variability among themselves (Table 5-12). They range in MPH on S51 from 5.38 to 14.82, and on S69 from 8.76 to 21.37. In comprehending, their range is 46.8 to 64.7% and on S69 from 36 to 74%. Residual miscues are 1.64 to 7.18% on S51 and 2.07 to 12.69% on S69. All low scores are from HP4-820 and most highs are from HP4-819. The other subjects fall in between. HP819 is the only subject whose figures indicate he had less difficulty with S69 than S51. For all subjects there is considerable difference in performance on the two stories.

Dialect examples from Dina are typical of the group.

HP4-820, with the lowest residual miscues on both stories corrects the most, too, 27.5% on S51 and 26% on S69, with no unsuccessful corrections on either story. Dina's (HP812) 8% correction on S69 is low for the group. The group has about 7% unsuccessful correction on both stories with 21.7% on S51 and 14.43% on S69.

Table 5-12

HAWAIIAN PIDGIN FOURTH GRADE GROUP STATISTICS

Subject Number Story Number	812		814		819		820		GROUP MEANS	
	51*	69**	51	69	51	69	51	69	51	69
Total Miscues	108	219	168	352	159	276	71	181	126.5	257
Coded Miscues	53	58	55	53	53	55	59	55	55	55.25
MPHW	7.75	12.21	14.82	21.37	14.64	11.8	5.38	8.76	10.65	13.54
Dialect Miscues	6	8	5	3	3	4	8	5	5.5	5
MPHW	.88	1.68	1.35	1.21	.83	.86	.73	.8	.95	1.14
Percent	11.3	13.8	9.1	5.7	5.7	7.3	13.6	9.1	9.93	8.97
Non-Dialect Miscues	47	50	50	50	50	51	51	50	49.5	50.25
MPHW	6.87	10.53	13.48	20.16	13.81	10.94	4.65	7.96	9.7	12.4
Residual MPHW	3.65	6.53	5.93	12.90	7.18	6.44	1.64	2.07	4.60	6.98
% corrected	21.3	8	18	10	20	13.7	27.5	26	21.7	14.43
% sem. acceptable	36.2	30	44	32	36	29.4	51	54	41.8	36.35
% sem. unacc. but corr.	10.6	8	12	4	12	11.8	13.7	20	12.08	10.95
Comprehending percent	46.8	38	56	36	48	41.2	64.7	74	53.9	47.3
% syn. acceptable	68.1	62	62	52	70	64.7	62.7	60	65.7	59.68
Proximity means										
graphic	5.13	5.67	4.58	5.21	5.02	5.6	5.08	5.5	4.95	5.5
phonemic	4.65	4.97	4.89	5.09	4.33	5.6	5.33	5.79	4.8	5.36
syntactic	8.03	6.97	6.84	7.92	7.91	8.18	6.41	6.37	7.29	7.36
semantic	5.41	6.13	6.73	6.50	5.83	4.69	7.15	7.07	6.28	6.09

* Freddie Miller, Scientist

** Royal Race

Every HP4 reader has higher graphic and phonemic proximity means on S69 than S51 with means of 4.95 graphic and 4.8 phonemic on S51 and 5.5 and 5.36 on S69. That's a familiar pattern of higher graphic and phonemic means on harder stories. About 20% of HP4 miscues are of low or no graphic proximity, 30% moderate and 50% high on the two stories. Phonemic proximity is 22.5% low, 27.5% moderates and 50% high.

All HP4 readers have between 60 and 70% syntactic acceptability on both stories except HP4-814 with 52% on S69. Syntactic acceptability is higher in all subjects on S51. Only 17% of S51 and 19% of S69 miscues are fully unacceptable syntactically. In S69, 27% are acceptable except for other miscues in the sentence, compared to 16% on S51.

About 50% of the HP4 miscues in both stories produce different deep structure, and about 35% have no transformation. The rest are mostly lost deep structure (13% on S51 and 12% on S69).

With the exception of HP4-820, semantic acceptability is in a narrow range from 36-44% on S51 and 29.4-32% on S69. HP4-820 has 51% and 54%, respectively. All other subjects have higher percents on S51 than S69.

Mean percent of miscues fully unacceptable semantically is 39.2% on S51 and 36.8% on S69. But HP4-820 has only 14% such miscues on S69. Miscues semantically acceptable except for other miscues are 15.6% for S51 and 19.9% for S69.

Miscues acceptable with preceding or following text are 19.1% on S51 and 26.9% on S69.

Bound morphemes are involved in only about 12.3% of all HP4 miscues on S51 and 13.1% on S69.

HP4-814 (Marie) seems to have more (particularly of bound morpheme substitutions). Her totals are 22% and 24% on the two stories.

Some of Marie's miscues are -ly deletions or insertions:

...he was ^{carefully} careful... (line 0106) ...guided ^{skillful} skillfully to a stop.
(line 1505)

he ran ^{wild} wildly. (line 0216) ...he felt ^{angrily} angry. (line 1311)

They met his own ^{brave} bravely... (lines 0508, 0509)

Others involve verbs:

He wore ^{wearing} a short cape (lines 0304, 0305)

At the king's feet ^{laying} lay... (lines 0408, 0409)

...the word ^{seeming} seemed to reach (line 0511, 0512)

...^{Kneeling} Kneel before him now. (line 0601)

... his first trick ^{failing} failed (line 1326, 1327)

A few are mixed -- the substitution of one type of bound morpheme for another:

Nearly
Nearer...

...a handsome ^{earlier} elderly man. (lines 0303, 0304)

Umi's ^{quickly glanced He} quick glance had picked out... (lines 1017, 1018)

...one loud ^{aloud} slap... (line 1219)

Some involve nouns:

Alloa put his ^{hands} hand on ... (lines 0603, 0604)

...with the other ^{sled} sleds." (line 0703)

Some are imperatives:

...^{large} no larger... (lines 1429, 1430) There was ^{greatest} great shouting
(lines 1508, 1509)

This amount of miscuing with bound morphemes reflects some confusion, yet it also reflects some control. She is doing things with English bound morphemes, not random word parts. Only one example, earlier, is not possible in English. This type of miscue seems to characterize a period of developing control. Considering that Pidgin itself uses no inflectional suffixes, we might expect even more miscues with them in the group.

Most of Marie's bound morpheme miscues and most of those of HP4 involve inflectional suffixes. The majority are also substitutions.

On the word and free morpheme level, HP4-820 (Walter) stands out. Only about 45% of his miscues are substitutions at this level on both

stories and about 35% are omissions. Omissions of other HP4 subjects range from 0-13.2% on either story. Substitutions are 68.6 to 93.9%.

This high proportion of omissions is even more interesting, considering that Walter has the lowest residual MPHW on both stories. Here are some examples and related phenomena on S51:

"You've wrecked that doll!" she exclaimed. (line 0105)

Freddie had ^Cheard ^{all}a lot about Uncle August. (line 0206)

His father usually called him Tinker... (line 0211)

Several things seem to be operating in Walter's reading which involve word omissions. Sometimes omission appears to be a deliberate strategy. The first three times Ahele occurs in S69 it is omitted:

"With my other son, Ahele, he shall one day rule...

Liloa...said "Ahele", I want... (line 0808, 0809)

"Come with us, Ahele, your brother wants... (line 0901, 0902)

After that \$Ahili is substituted for Ahele whenever it occurs.

A related strategy is omission of unusual, but dispensable words, mostly adjectives and adverbs:

The spear...stuck, quivering ...to ride the holva sled...
(lines 0623, 0624)

...that dignified face... (line 0311) he saw the magnificent course
(lines 1111, 1112)

looked at him keenly (lines 0612, 0613) a handsome elderly man
(lines 0303, 0304)

Guards, courtiers, and members of the royal family...(lines 0520, 0521)

But there are miscue omissions which cannot be deliberate but reflect the reader's preoccupation with meaning rather than words:

Then the next morning his father would say... (S51, line 0318)

...the school bell was ringing, ringing. (S51, lines 0408, 0409)

...the small battery he had intended to use... (S51, line 0603)

...he couldn't open the closet door... (S51, lines 0516, 0517)

by the one main road (S69, line 0113)

the sparkling blue and green of the ocean (S69, line 1201, 1202)

...sped down the green track... (S69, line 1222)

...touched the ground again on the smooth grass... (S69, lines 1431, 1432)

...he put out his hand... (S69, lines 1516, 1517)

Standing between them, the king put his arms around their shoulders...
(S69, lines 0813, 0814, 0815)

There are times when word omissions either reflect or cause loss of meaning. Walter seems to have trouble with some clause dependencies, particularly those with as as clause markers:

But as he reached... (S69, line 0203) ... even as they are...
(S69, line 0533)

... as he ran wildly... (S69 line 0216) ... it was as he picked (S69, lines 0104, 0105)

It was repeated again and again as each sled was ... (S69, lines 1502, 1503)

When Freddie ran up from the cellar... (S51, line 0511)

While Freddie cleaned out the refrigerator, his mother kept saying...
(S51, lines 0307, 0308)

In these examples, corrections or adjustments preserve meaning, but not all of Walter's omission miscues cause no loss of meaning:

One glance at the dignified face... (S69, lines 0310, 0311)

Last of all walked two [©]men ^{crying} carrying drums. (S69, lines 0717, 0717)

...that was dark and cloudy, and had a queer smell. (S51, lines 0226, 0227)

after the cut in his allowance (S51, line 0219)

If this pattern of Walter's omissions has a relationship to Pidgin it may be in the difference in clause structure reflected in the as clauses above. But the rest of his omissions seem to reflect strategies for getting to meaning and coping with unfamiliar terms.

As might be expected, he produces only five non-words in both stories combined. That compares with 17-34% on S51 for his peers and 9.8 to 20.4% on S69. HP820 also has far more syntactic change in syntactically acceptable miscues on both stories than any other reader in his group. Syntactic proximity means are lowest for the group, reflecting this change but semantic proximity means are highest indicating smaller meaning changes. Walter is the only subject in the group with higher semantic proximity means than syntactic. That means that meaning is being modified less than syntax.

Hawaiian Pidgin Second Grade

Hawaiian Pidgin second grade readers seemed to find the culturally relevant S67, Ah See and the Spooky House, easier than S44, the standard story. (Table 5-13)

All subjects have lower residual MPHw on S67 with a group mean of 2.23 compared to 4.13 on S44.

Comprehending percents are quite variable. HP2-801 is low with 40% on S44 and 54% on S67. HP2-803 is high with 85% and 93%. Correction ranges from HP809's 12% on S44 and 8% on S67 to HP2-803's 36% and 54%.

HP803 is low on Coded MPHw: 6.18 on S44 and 5.82 on S67 with HP2-808 high with 15.38 and 12.83. All subjects have higher MPHw on S44 than S67 (means 12.01 and 8.97).

Semantic acceptability ranges from 26 to 64% on S44, but only from 44 to 67% on S67.

Table 5-13

HAWAIIAN PIDGIN SECOND GRADE GROUP STATISTICS

Subject Number Story Number	801		803		808		809		GROUP MEANS	
	44*	67**	44	67	44	67	44	67	44	67
Total Miscues	86	87	44	55	97	104	64	86	72.75	83
Coded Miscues	64	73	44	55	56	58	51	52	53.75	59.5
MPHW	15.31	8.52	6.18	5.82	15.38	12.83	11.18	8.74	12.01	8.97
Dialect Miscues	14	23	5	9	7	8	2	2	7	10.5
MPHW	3.35	2.68	.7	.95	1.92	1.77	.44	.34	1.60	1.44
Percent	22	31.5	11.4	16.4	12.5	13.8	3.9	3.8	12.45	16.38
Non-Dialect Miscues	50	50	39	46	49	50	49	50	46.75	49
MPHW	11.96	5.83	5.46	4.87	13.46	11.06	10.75	8.4	10.4	7.54
Residual MPHW	7.16	2.68	.84	.21	4.12	2.65	4.39	3.36	4.13	2.23
% corrected	14	16	36	54	26	40	12	8	22	23
% sem. acceptable	26	46	64	67	51	44	51	58	48	53.75
% sem. unacc. but corr.	14	8	20	26	18	32	4	2	14	17
Comprehending percent	40	54	85	93	69	76	59	60	63.3	70.8
% syn. acceptable	44	84	69	72	61	58	73	70	61.75	71
Proximity means										
graphical	5.9	5.6	4.1	3.9	3.7	5.3	5.9	5.4	4.9	5.05
phonemic	5.5	5.6	4.0	3.9	3.6	4.6	5.6	4.9	4.67	4.75
syntactic	7.9	7.9	7.2	6.9	6.3	7.2	8.0	8.4	7.35	7.6
semantic	8.1	6.0	6.7	6.9	7.0	5.8	5.3	7.5	6.78	6.55

* Kitten Jones

** Ah See and the Spooky House

Syntactic acceptability ranges from 44 to 73% on S44 and 58 to 84% on S67.

Our four subjects show similarities but each has a somewhat unique pattern. HP2-801 has MPHw and non-dialect MPHw, almost twice as high on S44 as S67, half as high semantic acceptability on S44 and comparable correction. HP801's residual miscues are 7.16 for S44 and 2.68 for S67.

HP2-808 has almost the same MPHw, 15.38* on S44 as 8.01, but more comparable MPHw on S67. He has 51% semantic acceptability on S44 and much higher correction, 26% and 40% on the two stories than HP801. This results in residual MPHw of 4.12 for S44 and 2.65 for S67.

HP2-809 has lower MPHw than 808 on both stories, lowest correction rates, moderate semantic acceptability (51 and 58%) and residual MPHw of 4.39 and 3.36.

Dialect percent varies from 809's 3.9, 3.8% on the two stories to 801's 22, 31.5%. Since 801 has the highest dialect percents of any HP reader, they warrant closer scrutiny. HP801 is the younger brother of HP4-819, who has only 5.7% and 7.3% dialect miscues on the two fourth grade stories.

We compared 801's dialect miscues with the opportunities in the text of Ah See, S67, with these results:

Table 5-14

DIALECT MISCUES: SUBJECT HP2-801 ON STORY 67

	Possessive 's Deletion	Noun Plural -s Deletion	Verb -ed Deletion	Verb -s Deletion	Deletion of be form in Contraction ('s)
Occurrences	12	14	22	2	9**
Miscues	12	9	8*	1	5
Miscue %	100	64	36	50	55

* Includes aks 3 times for asked

**All examples of non-deletion are let's

These miscues reflect the lack of inflections in Pidgin. Why this subject is so much more consistent than the others is not evident. Inconsistent use of dialect features is what has been found in speakers of low status dialects in other linguistic communities.

HP2-803 (Jeanne) has a very high rate of correction, 36% on S44 and 54% on S65. Combined with 67% semantically acceptable on S67, the 54% correction produces 93% comprehending percent and only .21 residual MPHw. Only 26% of Jeanne's miscues are semantically unacceptable but corrected on S67. Patterns are similar on S44, but she is somewhat less efficient with slightly higher MPHw, residual MPHw and slightly lower correction, semantic acceptability comprehending and syntactic acceptability.

Jeanne is a good example of a self-monitoring second grader.

She shows these corrections of semantically and syntactically unacceptable miscues from S67:

"Saboro!" ^(C)asked Antone called. (line 0401) You mean ^(C)the (spooky) one.
(lines 0403, 0404)

He closed the gate ^(C) Let Up the Pali trail (line 0202)
(line 1713)

From inside came ... (line 1714) ^(C)We Where did you ... (line 1703)

Keoki climbed ^(C)on top of him. (line 1714) ... hearing ^(C)laugh
... hurrying and laughing.
(lines 1714, 1715)

^(C)where were we lived... (line 1707)

Several of these are partially acceptable but not with what follows.

Some corrected miscues are syntactically acceptable, but not semantically:

^(C)I He climbed... (line 1008) ^(C)Let Tell us (line 1015) ^(C)We I have ... (line 1504)

Some corrections are not essential to preserve meaning:

Keoki led the way ^(C)to up the pali trail ^(C)to the house at the top.
(lines 1701, 1702)

^(C)called Elmer. (line 1015) ^(C)Saburo said. (line 1702)

^(C)But it had... (line 1202) ^(C)A HA Ah See (line 1502) ^(C)Ah Hee Ah See (line 1704)

^(C)for the Chinese New Year (line 1706) ^(C)a big hungry mouth (line 1604)

Since several of these miscues do not get corrected until another word or two have been read, it seems that HP803 is being rather careful and monitoring for accuracy as well as meaning, predicting well but being somewhat cautious about her predictions.

In a few cases, corrections are not fully successful:

...made of boxes and ^{UC}clothes ^{UC}clothes ^{UC}clothes and paper and ^Cpaint. (lines 1606, 1607)

^EIt had
"And a long green head"...(line 1204)

Here are her miscues that lost meaning but went uncorrected:

Just as Keoki looked through the hole... (line 1215)

"It couldn't be a dragon"...(line 1201)

Antone stood under the whole hole in the fence. (line 1213)

When they ^{RS}did, they saw that the gate ^{open}in the fence was open. (lines 1402, 1403)

These seem to reflect relatively complex processing which Jeanne simply can't quite recover from. She shows very little correction on either story.

There are some interesting correlations to this young reader's high rate of correction and low loss of meaning.

Jeanne shows 36.7% of word-for-word miscues with no phonemic proximity on S67 and 26.7% with no graphic proximity. That partly accounts for the low graphic and phonemic means on both stories that she has (about 4 on both variables). HP808 also has low means on S44 but that relates to high levels of omissions, 28%.

Different deep structure is involved in 65% of Jeanne's miscues. She shows higher percent of omissions, 26% on S67 than on S44, 17%. That's opposite from her peers. She has almost no non-word substitutions on either story.

She also has relatively low percents of semantically unrelated miscues and relatively high percents of miscues with peripheral cues, 33% on S67.

These patterns add up to a confident, but cautious, reader making high quality miscues and carefully monitoring them.

The HP2 readers show somewhat higher dialect percents than other HP readers. They found their stories somewhat less difficult than HP4 readers and comparable to HP6 readers. Pidgin itself does not seem to be a serious factor in their reading development.

Table 5-15

HAWAIIAN PIDGIN SIXTH GRADE GROUP STATISTICS

Subject Number Story Number	825		826		827		830		GROUP MEANS	
	53*	70**	53	70	53	70	53	70	53	70
Total Miscues	84	206	84	105	262	368	185	259	153.8	234.5
Coded Miscues	52	59	56	49	62	58	59	56	57.3	55.5
MPHW	9.72	6.21	3.98	3.52	10.44	16.71	10.79	9.54	8.7	9.0
Dialect Miscues	3	8	7	1	12	8	8	7	7.5	6.0
MPHW	.56	.84	.50	.07	2.02	2.31	1.46	1.19	1.1	1.1
Percent	5.8	13.6	12.5	2.0	19.4	13.8	13.6	12.5	12.8	10.5
Non-Dialect Miscues	49	51	49	48	50	50	51	49	49.8	49.5
MPHW	9.16	5.37	3.48	3.45	8.42	14.41	9.32	8.35	7.6	7.9
Residual MPHW	2.43	1.47	0.92	1.44	3.54	8.65	2.93	2.56	2.4	3.5
% corrected	38.8	27.5	42.9	39.6	10.0	8.0	27.5	32.7	29.8	27.0
% sem. acceptable	46.9	56.9	55.1	33.3	52.0	34.0	51.0	51.0	51.3	43.8
% sem. unacc. but corr.	26.5	15.7	18.4	25.0	6.0	6.0	17.6	18.4	17.1	16.3
Comprehending percent	73.5	72.5	73.5	58.3	58.0	40.0	68.6	69.4	68.4	60.1
% syn. acceptable	65.3	66.7	67.3	68.8	62.0	68.0	70.6	79.6	66.3	70.8
Proximity means										
graphic	5.84	4.56	5.76	5.95	6.02	5.95	5.23	5.89	5.7	5.6
phonemic	5.32	4.28	5.58	5.76	5.30	5.70	4.66	5.32	5.2	5.3
syntactic	7.42	7.63	7.15	7.47	7.32	7.68	7.61	7.79	7.4	7.6
semantic	6.48	7.07	6.56	6.56	6.73	6.47	6.12	6.52	6.5	6.7

* My Brother Is A Genius

** Ghost of the Lagoon

Hawaiian Pidgin Sixth Grade

For the group, it appears that the two stories, S53 and S70, are about equally difficult. (Table 5-15) Coded MPHw is about 9 on both; non-dialect MPHw is 7.6 and 7.1. Percent corrected is 29.8 and 27. Syntactic acceptability is 66.3 and 70.8%. Semantic acceptability and comprehending percent are somewhat higher and residual MPHw is lower on S53, the standard story. However, these differences result from only two of the four subjects, HP6-826 and HP6-827, especially the latter who has a high residual MPHw of 8.63 and low comprehending of 40% on S70, Ghost of the Lagoon.

HP6-825 actually has better figures on S70 than S53, as far as MPHw and residual MPHw, though comprehending is about 73% on both.

All HP6 subjects have relatively high correction rates, 27.5 to 42.9%, except HP827 (Thomas) with only 10 and 8% on S53 and S70. He does not attempt correction often, with only 12 and 8% unsuccessful attempts.

Thomas makes 368 miscues on S70; that's 16.71 MPHw on the coded portion. It's more than three times the quantity of HP6-826; Thomas' residual MPHw is also much higher on both stories. The following is a complete page near the middle of the story with all of his miscues marked.

- 0501 ^(RS) A minute later he dashed ^(d) across ^(C) the white sand ^(d) to
- 0502 where his canoe was drawn ^{down} up beyond the water's ^(s) ^(d)
- 0503 reach.
- 0504 Afa barked ^(d) at his heels. Afa was all white except
- 0505 for a black spot over each eye. Wherever ^{Marko} Mako
- 0506 went, ^{they} there went Afa, also. ^{How} Now the little dog leaped
- 0507 into the bow ^{bow (like throw)} of the canoe, his tail ^{waggled and} wagging with
- 0508 delight ^{the} The boy ^A shoved the canoe into the water
- 0509 and climbed aboard. ^{They picked the} They ^(s) picking up his paddle, he

4. it into the
3. in
2. tossed in the
1. trust

- 0510 ^{UC} tossed ^{UC} trust ^{UC} thrust ^{UC} it ^{UC} into the water. The canoe shot ahead. Its
- 0511 sharp bow cut ^{bow (throw) Thought} through the green water of the lagoon
- 0512 like a knife ^{thought} through cheese. ^C Like And so clear was the
- 0513 water that Mako could see the coral gardens ^{RS} forty
- 0514 feet below him, ^{belong} growing in the sand. The shadow of
- 0515 the canoe moved over ^{then} them.
- 0516 A school of fish swept by, like silver arrows. He
- 0517 saw ^{scarlets} scarlet ^{sc-} rock ^C ^{robbly} cod with ruby eyes, and the head
- 0518 of a conger eel ^{coroner} ^{peering} peering out from a ^{scarnvern} cavern in the coral.
- 0519 The boy thought suddenly of Tupa ^{Tupa's} [@] ghost [@] was of the
- 0520 lagoon. On such a bright day ^C ^{an-} it was hard to believe
- 0521 ^{the} in [@] ghosts of any sort. ^{shark} ^{*fierce} The fierce sunlight drove away
- 0522 all ^{through} thought of them. Perhaps [@] ghosts were only old
- 0523 ^{man's} men's stories ^{away} anyway!
- 0524 Mako's eyes came to rest [@] upon his spear - the
- 0525 spear ^C ^{went} that he had made with his ^{that owns} own hands. He
- 0526 remembered his ^{vow (like foe)} vow of the night before. Could a
- 0527 [@] ghost be killed with a spear? ^{vowed (like rowed)} Mako vowed that some

- 0528 night, when all the ^{villagers} village was ^{sleepy} sleeping, he would
- 0529 find out! He ^{could} would paddle out to the reef and chal-
- 0530 lenge Tupa! Perhaps tonight ^{wa-} Why not? ^{be} He caught
- 0601 his breath ^{RS} at the thought.

Thomas illustrates in this passage the use of the reading process by a reader who has control of the cue systems and the process, but can't quite get them all together.

His dialect is evident but not significant: (line 501) dash/dashed, san/sand; (line 502) water/water's; (line 521 & 522) ghos/ghosts. Perhaps (line 514) belong him/below him is dialect.

He's using each cue system:

Graphophonic

(line 0501) while/white; (0502) down/drawn; (0505) Marko/Mako; (0506) hoe/noe; (0507) bow (as in throw)/bow (as in how); (510) trust/thrust; (511,512) thought/through; (514) belong/below; (518) coroner/conger

His non words are (517) \$robbly/ruby; (518) \$peery/peering; (518) \$carnvern/cavern; (521) fierence/fierce; (526) \$voe (like foe)/vow; (527) voed (like rowed)/vowed. All are phonically close to the ER.

He shows some graphic associations: (511, 512) thought/through and (522) through/thought. (Lines 506, 509) They, then, there are mixed here and elsewhere in the story. (506) How/Now are also mixed here and later.

In none of these cases is there consistent substitution (see 519, thought) throughout the story.

Thomas' graphic and phonemic means are relatively high on both stories.

Syntactic

With 68% syntactic acceptability on S70, we should not be surprised at Thomas' demonstration of use of syntax in this excerpt.

In a number of cases he substitutes within form classes: (505) Marko/Mako; (507) waggled/wagging; (509) picked/picking, the/his; (510) tossed/thrust, in/into; (518) coroner/conger; (528) villagers/village; (529) could/would.

Semantic

In these sentences he seems to seek out meaning in addition to the syntactic cues.

They picked the ^{UC}tossed ^Ctrust
Then picking up his paddle, he thrust ^Cit ^Cinto the water. (lines 509, 510)

^Con- the ghost
it was hard to believe in ^Aghosts of any sort. (lines 520-521)

villagers sleepy
when all the village was sleeping,...(line 528)

He is sampling, predicting, confirming, correcting. In fact, in this excerpt more than elsewhere in the story, he corrects often when that's needed. (lines 501, 510, 512, 520, 525, 530)

With all of Thomas' miscues, we should not lose sight of how much strength he has. Of 25 sentences in this excerpt, five have no miscues. Eight are fully acceptable after corrections. That leaves twelve with disruptive, uncorrected miscues.

Thomas shows problems in this sequence, too, of course. But it would be hard to apply traditional categories or causal relationships. Does he have a phonics problem? What phonics exercise will help him sound out bow, vow, now, how, growing and below? He has habitual graphophonic associations on words like thought and through that are so strong he leaves totally unacceptable sequences in lines 511 and 512. But is the cause of that a lack of phonics or too much? The problem isn't the miscue but the failure to correct; something he does successfully elsewhere.

Only 6% of Thomas' miscues on S70 are fully acceptable semantically. Twenty-six percent are acceptable except for other miscues in the sentence. That shows the compounding effect of his miscues. It also shows that his key problem is a lack of integration of the reading process and not enough focus on getting meaning.

Thomas has few omissions, 6% on S53 and 8% on S70; and he has only moderate percents of non-word substitutions. He has the least peripheral field involvement in the group. Perhaps ironically, his large number of real word for word substitutions reflect too much word focus and not enough focus on meaning.

Thomas shows in this excerpt the mixture of strength and weakness we've been finding in non-proficient readers in middle grades. He appears to be working too hard at getting words and he is neutralizing his natural tendencies to get meaning from language; tendencies which his semantically acceptable and corrected miscues in this excerpt reflect. Again it should be stated, there is no evidence that his dialect, per se, is contributing to any reading problem though an uninformed teacher might mistake dialect features in his reading for reading difficulties.

The other readers in the HP6 group have themselves more together as readers. Except for HP6-826 who drops to 58.3% on S70, all are around 70% in comprehending percent and below 3.0 in residual MPHw on both stories. However, in their retellings, only HP6-825 is superior to Thomas on S70. She was the only reader in the group with lower residual MPHw on S70 than S53 and she has a higher retelling score, 59, on the former than the latter (46 on S53).

CHAPTER VI

SECOND LANGUAGE GROUPS

Four groups in our study speak English as a second language. All attend schools, however, in which English is the medium of instruction. All are expected to learn to read and write English at the same pace as native speakers of English.

Our four groups have this set of circumstances in common. They differ, however, not only in their first languages, but also in culture, history, and relationship to the English language and English speakers.

Our Texas Spanish (TS) group are speakers of Spanish in an area that was part of Mexico before Texas became part of the United States. Historically, Spanish was the language of the region. The majority of residents still speak Spanish. Cultural ties to Mexico are still strong. Movement across the border has been continuous for several hundred years. But our TS subjects are truly bilingual. They have receptive and productive control of the dialects of both languages common to their area. In neither case are these high status dialects, in fact, they influence each other with Spanish invading their English and English influencing their Spanish. They are then, in a complex, but relatively stable linguistic setting, one in which both languages continue to be functional.

Our Arabic (AR) subjects, by contrast, represent the transitional linguistic setting of all urban immigrants in the history of the United States. They arrive in the schools of industrial Michigan monolingual speakers of one of the many dialects of Arabic, used in Syria, Lebanon, Jordan, Yemen, Egypt, or Iraq. Though their community is largely composed of other Arab immigrants, they are immersed in a larger English speaking community and culture. Their need for receptive and productive control of English is clear and highly motivating. The children are likely to achieve such control faster than their parents.

But during the first year or two of school they will be learning to read and write English simultaneously with learning to speak and listen with comprehension. Their developing control, receptive and productive, can create in a linguistically unsophisticated observer a sense of their linguistic inadequacy which is quite unwarranted. They may have receptive control of English in reading and listening, which far exceeds their ability to express in English what they have comprehended. Their developing control of English grammar may mask their meaning for teachers. Further, they will vary from each other, at any point in time, in the degree with which they control English. Tests given to them in September are of little use in judging their progress by June.

The Hawaiian Samoan (HS) group represents still another pattern. They are, like the AR group, cultural as well as linguistic migrants to an urban community. But the cosmopolitan Honolulu community to which they come has many cultural and linguistic differences from Dearborn, Michigan. A key difference is that the English of the surrounding community in inner city Honolulu is Hawaiian Pidgin, the creole of the Hawaiian Islands. This differs from the dialect of instruction, Hawaiian Standard English. These subjects, speakers of Samoan at home, learn Pidgin in the streets and playgrounds and must then cope with the English of school.

They are cultural and linguistic cousins to the indigenous inhabitants of Hawaii. But the cultural distance from Samoa to modern Honolulu is not a small one.

Like the Arab subjects their English may be in transition, but its dominant productive direction is Pidgin.

The Navajo (NA) subjects live the life of their ancestors in the place of their ancestors. Not only the United States, but its language, culture, and artifacts have come to surround them, encroach on them, confront them. They've been offered little choice about the language, culture, life styles of the invaders, it is the school's curriculum. But they may take a path of passive cultural and linguistic resistance. This resistance may be seen by teachers and observers as disinterest, incompetence, stupidity.

In combination with a cultural aversion for taking public risks the resistance creates a sense of linguistic deprivation. Silence in the classroom is seen as proof that children are non-verbal.

The language of the home of these native Americans is Navajo. When they come to the Bureau of Indian Affairs boarding school at 6, 7, 8 years of age their English is minimal or non-existent. When they return to their homes at vacation times, or when they simply walk away, there is little that relates the world of home and school.

Still all of our subjects, selected as average for their groups, show some control of English. All show ability to read, at some level, English texts, though our second grade Hawaiian Samoan and Navajo subjects were given alternate tasks for the standard second grade story, S44, Kitten Jones, because they seemed unable to cope with it.

There are instances in all groups where the influence of first language and special or transitional forms of English shows. There are culturally influenced patterns, in groups and individuals, that show in their reading and retelling.

But there are no patterns so different that they make the reading of any group unique. Again we must say this report would be easier to write if we could cite sharp distinctions in the way children read in a second language or the way Navajos or Samoans read English. But, as with our dialect groups we must say that the single process by which

meaning is constructed comes through clearly in these second language readers. Individuals show variation in how they use this process, and this variation reflects their linguistic and cultural backgrounds, but the variation is constrained by the realities of the process, the psycholinguistic strategies and cue systems of reading.

The Texas Spanish Group

Our bilingual English-Spanish speaking group (TS) is from Goliad in Southeast Texas. Goliad, the county seat of Goliad county, is situated 150 miles southeast of San Antonio and 40 miles above the Gulf of Mexico. It is one of the three oldest municipalities in Texas. Its name comes from an anagram for Hidalgo. Historically it was one of the major battlegrounds during the Texas campaign for independence from Mexico. Many of these battles are memorialized in Goliad's State Park.

The estimated population in 1973 was 5,100. Ninety percent of the reported average annual income in Agriculture was from cattle, hogs, sheep, and poultry. Livestock and poultry raising are the chief agribusiness. Corn is one of the main crops raised (Texas Almanac, 1975).

The fathers of our subjects tend to work as ranch hands. We selected our subjects on the advice of educators as being essentially monolingual speakers of Spanish with minimal English.

We soon found, however, that our subjects were bilingual in a full sense. They could read in English with miscue patterns much like the native speakers of English in our study, and they could discuss what they read in English or Spanish. Their English has Spanish influences, but it does not appear to be the transitional English of our Arabic readers. It is a relatively stable form of English used in the bilingual community of which our readers are a part. They use it daily in and out of school.

How typical our subjects are of Mexican-Americans, or bilingual Mexican Americans, or southeast Texas bilingual Mexican American children, or even Goliad, Texas Mexican-American children it is impossible to say. We tried to assure ourselves they were average for their grade and school.

They certainly do not fit older stereotypes in the professional literature. Tireman cites studies of American bilingual children from the mid-twenties (Tireman, 1948, pp. 23-25). Many of these studies focus on Spanish-speaking children labeling them Mexican, Spanish-speaking and Spanish-American. The various titles indicate the authors' concerns and some, perhaps, their prejudices. (The Language Difficulty of Spanish-American Children, Study of the Causes of Retardation Among Mexican Children)

A review of the studies of Spanish-speaking children from 1924-1930 (Sanchez, 1932, pp. 549-58) found that studies during that time attributed poor test performance to "mental inferiority" and "dual language handicaps". Some of the authors of these studies showed some

concern for testing in the child's first language but they generally saw no further bias in the tests. Sanchez, in the same article, suggests that the influence of environment has not been considered and needs to be.

Studies during the thirties of various bilingual groups that did focus on environmental factors as well as age and sex concluded that bilingualism did not influence mental development, verbal intelligence or school adjustment.

As early as 1937, there was awareness that the low socio-economic status of the Spanish-speaking children as a group was related to their low test performance, though this did not correlate for individuals within the group (Manuel, 1935, p. 63).

Carter (1970) cites various sources to show growth in the educational level achieved by Mexican-Americans. For example, during the fifties the median educational level of Mexicans increased more than Anglos or any other minority (Ibid, p. 32). However, the gap is still wide, since the Mexican-American came from such a low beginning relative to the other groups. His most interesting comment on progress during the fifties is "All aspects of Mexican-Americans' interaction with the schools seems to be slowly improving (although only teachers' observations support improving levels of achievement)" (Ibid, p. 33).

Reading Achievement of Chicanos

One study reports that in Texas in fourth grade only 13.1% of Chicano pupils were above grade level as compared to 34.2% of Anglo pupils and 35.2% of the Chicanos were at grade level as compared to 44.8% (U.S. Commission, 1971). In eighth grade, figures are 15.6% Chicano pupils above grade level and 20.1% at grade level, as compared to 38.7 and 33.1% of Anglos. In twelfth grade the figures are similar.

All these figures are, however, based on administrator's estimates on a mailed questionnaire and may not be realistic.

Other studies in the past eleven years show this same wide disparity in reading achievement between Chicanos and their Anglo counterparts. The Coleman Report (1966) placed Mexican-American students fourth in reading achievement among the six ethnic and racial groups sampled. In a Mexican-American study conducted at UCLA in 1970, findings were similar (Grebler, et al, 1970). The Mexican-American students who were sampled from the Los Angeles area scored considerably below the national norms in comparison to the Anglo students who scored slightly above.

To date, most of the literature on the study of Chicanos' language in the Southwest can be found in M.A. theses or doctoral dissertations. El Language de los Chicanos (Chavez, Cohen, and Beltramo, 1975) is a collection of studies that deals with the social and regional characteristics of language used by Chicanos. It also includes a comprehensive bibliography.

Article titles include: "Mexican Spanish", "Chicano Spanish Dialects and Education", "Spanish-English Bilingualism in San Antonio, Texas", and "Spanish-English Codeswitching".

The last article raises some questions about the influence of Spanish on English and vice-versa. Our Spanish retellings had a lot of code switching in them.

We've analyzed the reading and retelling of our TS group for evidence of Spanish or Chicano English influences.

Among the phonological features examined were the following: th to d, sh to ch, v to b, d to t, and z to s.

Th to D

The Spanish and English phonological systems have the allophones /d/ and /ð/ (often represented as /ɗ/ for Spanish dialects) of the phoneme /d/. In English the /ð/ occurs in the initial and medial position; e.g. the, those, them, mother, father, and either. However, the /ɗ/ allophone in Spanish is primarily found in the medial position e.g. dedo, desde, donde, and todo. Both these allophones /ɗ/ and /ð/ are voiced dental fricatives. The difference between these two allophones is that the "English /ð/ is more forceful and more interdental than the Spanish /ɗ/..." (Dalbor, 1969, p. 68). In addition, Dalbor reports that the Spanish allophones /d/ and /ɗ/ are used interchangeably in word initial position e.g. las damas can be said both ways /laz - ɗa - mas/ or /laz - da - mas/ (p. 67). He is the only author among three others (Politzer and Staubach 1965; Saville and Troike 1971; and Bowen and Stockwell 1960) that acknowledges this phenomenon. The others only report that /ɗ/ occurs in the medial and sometimes final positions whereas /d/ occurs in initial position only.

The interchange between the use of these sounds is obvious. Initially, we observed that the children substitute d for th, especially in the initial position. But when a more thorough analysis is made, another pattern emerges. One subject substitutes /d/ for /ð/ in the initial position of a word 68% of the time while 32% of the time he is producing the English version /ð/. This may suggest that this particular student is in the process of acquiring the English /ð/ in the initial position.

With this in mind, it was then hypothesized that since /ð/ and /ɗ/ are in medial positions for both languages, no d for th would occur. This is almost true. This subject says "modder" and "fodder" only twice out of 22 possible occurrences.

These sounds seem to be operating as allophones of a single sound with the reader shifting in their distribution. It may be with more careful study of the English dialects of Spanish speakers that the differences found between /d/, /d̪/, and /ð/ are dialect differences in themselves.

Sh to Ch

The substitution of sh for ch shows; they sometimes say che for she, and also Sharles for Charles, eash for each, kishen for kitchen, and teasher for teacher. Again, it might be considered commonplace for these children to do this since their particular dialect of Spanish does not appear to have the English phoneme /ʃ/ in its phonological repertoire. However, the same children that shift ch to sh also sometimes produce the English /ʃ/ in reach and kitchen, and sometimes say she and not che. This, again, may indicate that the children are in the stage of acquiring this particular phonological feature and are using a production range including both sh and ch. In other words, the productive distinction does not yet exactly match the native English listener's variation of ch or sh.

Because the students have sh to ch variations in English, we wondered if this also occurred in Spanish. After examining the Spanish retellings, we found that the shift from ch to sh is characteristic of two students. For example, leche and chiquita were pronounced with an sh sound instead of ch. However, in other parts of the retelling where these same words appeared, they were said with the expected ch sound.

This may suggest that both phonological systems are influencing each other, but only on occasion (at least for these particular students).

V to B

This shift exists in both directions. These two do not appear in Spanish as two separate sounds, e.g. tubo and tuvo are both /tu - bo/. According to Dalbor (1969, p. 61), "The sound /v/ has never been used consistently and contrastively in modern Spanish anywhere in the world, as far as dialectologists know. On the other hand, there does exist a sharp contrast in English between v and b, e.g. TB/TV, berry/very."

D to T

This usually occurred at the end of words but not exclusively, for example sait/said; mate/made; satly/sadly; hat/had; batly/badly. The use of t for d can be explained by the fact that the Spanish t is dental while the English t is alveolar. The aspirated t̪ in English is heard as a d in Spanish (Dalbor, p. 55).

Z to S

In Spanish the phonemes /z/ and /s/ are in complementary distribution, e.g. rascar, rasgar. Our subjects produced was(s) for was(z) and uzally for usually.

Vowels

Since Spanish has only five vowel sounds while English has up to eleven, and the five in Spanish do not correspond with those in English, there are many shifts in vowel sounds. The following examples are ones that have been heard. Some of these may be the influence of the local dialect of English: about/\$about; ahead/\$ahead; barn/born; farm/form; setting/sitting; strength/\$strength; tinker/tanker; think/thank; slip/sleep; sleep/slip; hurry/harry; nurse/norse; busy/\$beesy.

Morphophonemic Features

The following miscues are phonemic or morphophonemic dialect alternates of the ER:

"All right," ^{answer} answered Elizabeth. (S53 line 0712)

...a scientist life was ^{fill} filled with disappointments (S53 line 0218)

experiments narrowed to those safely ^{outlined} outlined (S53 line 0220)

Other examples of verbs include (from S53): rēekt/wrecked; explain/explained; fill/filled; compare/compared; dream/dreamed; startit/started; intend/intended; call/called; answer/answered; happen/happened.

These types of miscues were not observed to be a consistent pattern. Other -ed verbs were pronounced as expected: discovered/d/; worked/t/; shouted/əd/; returned/d/; looked/t/. In one particular case where the student was observed to super-correct (e.g. returuneded, outlineded), he was also observed to say the expected /əd/: shouted, frightened and happened.

The TS4 group read two stories, S51 and S85. The former story was primarily retold in English, while the latter was retold in Spanish and English. Portions of the Spanish retelling use English syntax. The following examples of the Spanish retelling not only contain syntactic patterns similar to English, but also are interspersed with English words:

1. El hombre halló this calf en un hole.
The man found this calf in a hole.
2. Y, despues se lo llevo para casa a una mujer y dijo que ese era como un pet.
And, then he took it home to a woman and said that it (he) was like a pet.
3. ...le pegó la cabeza quitando skin
...it hit (his) head taking off skin
4. ...porque no'taba bien fed.
...because it wasn't well fed.

Generally speaking, these three examples are representative of the common code switching occurrence in the Southwest among bilingual Chicanos.

The insertion of English words in the Spanish syntax may be a result of having learned the particular name in English, e.g. calf, pet, and skin. However, it was observed that calf was also called a "vaquita chiquita" (a little cow or calf) while pet and skin were only referred to as pet and skin. Perhaps the examiner could have asked the child if he knew the Spanish names for pet and skin in order to verify whether both English and Spanish words were known. If the child had known both, then perhaps it might have been a matter of word choice; but if he hadn't, then we could conclude that the child had acquired these forms from exposure to English usage.

Another phenomenon that was observed in the Spanish retelling involved the use of an unexpected grammatical and morphological verb pattern, i.e. an irregular past perfect verb was replaced by a regular past perfect verb pattern.

OR Se le había morido su amá
(His mother had died on him)

ER Se le había muerto su amá
(His mother had died on him)

In Spanish the past perfect verbs which are irregular change morpho-phonemically e.g. abrir/abierto; morir/muerto; hacer/heche. The regular verbs follow a consistent pattern e.g. comer/comido; ir/ido; tomar/tomado. What this particular child did was generate a pattern consistent with regular past perfect verbs.

The following example illustrates the Spanishization of an English word:

Le iba dar un bonche de comida.
She was going to give it a bunch of food.

In this case the Spanish syntax is used with the creation of a new word to fit the Spanish phonology.

A Texas Spanish Fourth Grader

Hernando (TS112) is one of our fourth grade TS group. He was nine years, nine months old at the time of our taping, the youngest of seven children in a family in which the parents are fluent in Spanish and speak some English. His father is a farmer. His mother is a housewife. All of his siblings are fluent in both English and Spanish. They are still in school, the oldest in college. School records show Hernando knew both Spanish and English when he entered school. Our Spanish-speaking interviewer said that his Spanish was good. He was able to retell the relevant story in Spanish and respond to her questions.

Test scores from the beginning of third grade indicated his verbal I.Q. score as 82. At the same time, his reading test performance was reported as 3.1 (grade equivalent).

The difference between his reading of S51, Freddie Miller, and S85, Sancho, are as interesting as the pattern of strategies he uses. In many ways his reading of the standard story, S51, was more effective.

Table 6-1

TS112 MISCUE ANALYSIS SCORES

	S51	S85
MPHW	11.06	15.19
non-dialect MPHW	10.36	12.79
residual MPHW	1.69	7.16
% Semantically Acceptable	38.8	20
% Semantically Unacceptable but Corrected	44.9	24
Comprehending	83.7	44

His low residual miscues per hundred words, 1.69 on S51, is the lowest in his group. His residual MPWH on S85 is much higher, 7.16, high for his group.

In both stories, Hernando corrects a great deal. He attempts correction of 77.5% of miscues on S51, an incredibly high percent and is successful on 55.1% including 44.9% that are also semantically

unacceptable before correction. On S85 he attempts to correct 52% and is successful on 30%. He far exceeds the rest of his group; in fact, few readers in the study correct as much as he does.

Here's Hernando's reading of the opening paragraphs of S51:

- 0101 ^{Miller} (Poor) Freddie ^A was in trouble again. He had been
- 0102 ^C experiment ^C a ^C chemical ^{RS} ^C Eli-
 experimenting with his chemistry set, and Elizabeth's doll
- 0103 had turned green.
- 0104 ^C His little sister ^C now ^C br-
 was heartbroken. Freddie's mother was
- 0105 angry. "You've ^{VC} reeked ^C the ^C she ^D
 w- wrecked that doll!" she exclaimed.

Hernando shows this continuous pattern of prediction, self-monitoring and self-correction.

With the exception of reeked/wrecked in this sequence, none of Hernando's miscues show direct influence of his Spanish first language. What he does requires a control of English, which he clearly has.

His corrections do not tell the complete story. He has corrected partials and running starts which add to the forward and back, try and then correct, pattern of his reading.

There is a lot going on in Hernando's reading. With his dialect-related miscues, his MPH_W is over 15 on S85 and 11 on S51, far above any other TS4 reader. That this can get him in trouble is evident in his reading of S85. Even with his substantial correction he has 7.16 residual MPH_W.

Still he does reasonably well in retelling with 60% on S51 and 72% on S85, high for the group on both. Perhaps the style of the writing contributes to Hernando's heavy miscuing in S85, but he doesn't seem to lose much of the sense.

In reading and retelling of both stories, Hernando produces a great many phonological changes that appear to be related to his English dialect and/or his first language:

sh shifting to ch --	should = \$chould	she = \$che
ch shifting to sh --	kitchen = \$kishen	watched = washed
	teach = \$teash	reach = \$reash
	much = mush	such = \$sush

th shifting to d --	this = \$dis	that = \$dat
z shifting to s --	lose = loose	
vowel changes --	slip = sleep	

Other changes may be related to the English that he hears:

crying = \$cryin

And others are either dialect or the result of reading instruction; for example, a is pronounced ā, and the is pronounced thē or \$dē. Purely phonological changes are, of course, not coded as miscues.

His dialect miscues were similar in both quantity and quality to those of the other fourth graders, except that he is the only fourth grader to delete a possessive s (into the calf's mouth) or to change a possessive pronoun (his, her) to an article (a, the) before a part of the body. These both indicate Spanish influence on his English.

Hernando's retelling of the story contained a great number of phonological features as well as the following which may be a result of the dialect of English he uses:

He maked the doll turn green.

...three o'clock in the night.

His teacher was talking angry...

...always get doing something...

His sister Elizabeth went and held his
father by the hand.

He had to save some half of his allowance.

She picking some eggs.

...kneeled down.

It had knocked John down from his bed.

(Where did the story take place?)
In John's ranch.

Because he didn't want to lose no money.

Hernando's retelling of S51 follows:

R: Now that's all. Do you want to tell me about that story?

S: Mm, yes. Fre-, Freddie he, he was making some, some chemicals an' he tried 'em on his sister's, on his sister's doll an' the doll turned green and then, he, one time he, one morning da 'larm clock lidn rin(g) and his father said dat alarm clock hadn't rung and den, he, Freddie said that he would fix, dat he fixed the alarm clock. And then one time at three o'clock in the night the 'larm clock rang and dey said, they thought it was a fire. And then he said "It couldn't be, I put it at, at seven o'clock." And den he, and then father at-, said "What!" and den, he, one night he, he had dreamed dat his teacher was talking angry at his father every time the bell rang. And den his fadder said one time dat he hoped that Freddie wouldn't be a, uh, scientist. And den one time, his mother said, "Just like Uncle Charles. Always get-, doing something bad. And then Freddie, Freddie went downstairs to \$kell, \$crell (cellar) and then he heard his sister hollering. Then he came out and then he said, he said, uh, he said, "Where are you?" he said "In the closet." she said, "in the closet" and den he, he got some, he said "Wait. I'm gonna go and get Mother." And den he said, "Don't leave me along." And den he, he said, "OK, I got an idea." And then he went and he got, got a ruler and got a battery and then, and some, some string and tied it to da battery. And den he ga-, he said to, he pulled the ladder to his sister and den he went up and then he said to give it to, to, to catch it by da, by the ruler and then he said, "I'm gonna go get mother." and then he said, "OK. It's not so spooky, spooky in there with the light." An-, and den he went and got mother and then that night when fadder came home his sister Elizabeth went and held his father by da hand. And took him, took him to da, took him to the kishen and then he said and then, he, he saw in one corner, he saw Freddie working with this table and then he saw Mother gettin supper ready.

R: OK. You remembered a lot. Alright. Uh, let's hear a little bit more about Freddie. What did, mm, what did they call him? What was his nickname.

S: Mm, mm, I don't r-, I can't remember.

R: OK. What was he always doing?

S: Mm, mixin up some, some uh, some mm. . .chemicals, was mixing up some chemicals.

R: OK. And you've said that one time he did something with uh his sister's doll. What was that you--

S: He, he made the doll turn green.

R: OK. And how did the sister feel about that?

S: She felt sad and then his mudder said to him that he had to save some, half of his allowance to buy his sister a doll.

R: OK. What is an allowance?

S: Some money that you get.

R: OK. What do you get it for?

S: Mm. Bein nice.

R: Oh, I see. OK. Er, was Elizabeth older or younger than Freddie?

S: Younger.

R: OK. Uh, what about, mm, Freddie's mother? Where was she from?

S: Um. . . can't remember.

R: OK. Mm, she kept talking, she, er, she kept doing what when K-, when Freddie would do something.

S: Talkin about his Uncle Charles.

R: OK. OK. What, mm, Freddie would do something. She'd compare him to what?

S: One of his uncles.

R: OK. Where were those uncles?

S: Mm.

R: What country was, at least one of the uncles in? Do you remember?

S: No.

R: OK. Hernando, what were you thinking about as you read this story?

S: Fre-, Freddie get. . . bein a scientist.

R: What about Freddie being a scientist?

S: He would, his mother said that, some. . . some day he would come up with a chemical that would change the whole world.

R: Oh, OK. Uh, uh, mm, do you think this, mm, story has any lesson for us?

S: Not to be with, not to be messing with chemicals.

R: OK. 'cos what might happen?

S: They, you might turn some ting, uh, you might do some ting.

- R: OK. Did you think this was a funny story? Or sad? Or, er, exciting, or what?
- S: It was sad.
- R: What was the sad part of it?
- S: When Freddie got in trouble.
- R: OK. Did, er, Freddie ever do anything good to get him out of trouble?
- S: Um, um (-) , he didn't.
- R: Anything happen to Elizabeth in this story?
- S: Yes, she got trapped in closet.
- R: OK. And how did Freddie help her?
- S: Made a flashlight and then he went to go and get mother.
- R: How did he make that flashlight? Do you know?
- S: With a ruler and a battery and. . .and a string.
- R: Do you know how to put it together? He did, he put that together.
- S: He tied, da battery, to da, to the ruler and den he, he got something and he got this string and tied it on to some ting and the, he made da flashlight and then gave it to Elizabeth.
- R: OK. Where di, em. Well, how did Freddie get that flashlight to Elizabeth if she was trapped in the closet?
- S: A ladder. . .to da ceiling, ceiling.
- R: Do you remember what the word was, where he put that flashlight? How he got it?
- S: Ceiling.
- R: OK. You know, where is it? Where is it, where he put the, got the flashlight to her?
- S: It was, top of the, mm. . .to da trainson, trainsom.
- R: Where would a transom be in this room?
- S: A what?
- R: Where would one of those things be in this room?

- S: Mm.
- R: Where on the door would it be?
- S: On top.
- R: Yeah. OK. Good. Er, where did Freddie do this work?
- S: In a cellar.
- R: OK. What's another word for cellar? What do we use...
- S: Basement.
- R: OK. Well, Hernando, anything else you can remember about this story you want to tell me? OK. Thank you very much.

Hernando has the most dialect miscues of any one in his group and the highest percent, 13.8, on S85.

He calls Rosita, Rosa, through much of the story, indicating his awareness of the derivation and relationships of the names. In the Spanish retelling the cow, Maria, becomes Mario.

He has relatively low graphic (4.42) and phonemic (3.50) means, particularly on S51. On S85 they are higher, 5.32 and 5.05, respectively. These are quite a bit below the group means. The lower scores on S51 reflect the tendency for all our readers to have low graphophonic correspondence on easier material.

The low phonemic score reflects 87% substitutions with no phonemic similarity. Most of these show acceptability with prior text and tend to be corrected. Here are some examples with low proximity:

- little sister ^(C) now was. . . (line 0104) ...knew that his mother... (line 0322)
- ...loved to tikker... (lines 0211, 0212) ^(C) that Sometimes he ... (line 0217)
- ...his next experiment was ^(C) to in ^(a) ... ^(C) I It was easy! (line 0320)
- ...she ^(C) to told her husband. (line 0303) ...to his ^(C) the parents' room. (line 0403)

Many are corrected, showing Hernando's tendency to predict and then use subsequent input to disconfirm and correct.

Again these patterns do not seem to be related to Hernando's bilingual background per se.

He produces miscues which are either syntactically acceptable (48% on S51, 46% on S85) or acceptable with prior or following structure (40 and 34%); only 12 and 20% are syntactically unacceptable. Most of his miscues produce different deep structures (67 and 48%) again showing the strength of his prediction and his control of English syntax. He only loses deep structure in 2 and 1% of his miscues. Almost 80% of his syntactically acceptable miscues produce no syntactic change.

Though correction is important to Hernando, so is making successful predictions. While 20% of his miscues on S51 are semantically unacceptable, 46% of those on S85 are. Forty-two percent on S51 are acceptable semantically with prior or following text, while for S85 that figure is 34%. As we reported earlier only 38 and 20% of Hernando's miscues are fully semantically acceptable before correction. Clearly he is making many miscues which are either semantically unacceptable or partially acceptable. He is able, on S51, to recover by correcting many of these since only about 16% on that story remain semantically unacceptable after correction. These strategies, as we've said, suffer in the story he apparently found harder.

Hernando shows moderately high peripheral field influences on his miscues; 28% of those in S51 and 21% in S85 involve such influences. That again reflects his predict and correct strategies. In most readers such miscues frequently involve insertions of function words, but Hernando has only a total of five insertions among his miscues in both stories. His peripheral field miscues are largely substitutions. He does show, in S51, a disproportionate rate of miscues where the observed response (OR) is a function word.

0226 ...one day Freddie ^{had} made an...

0227 ...and cloudy, and had a queer...

0301 ...Mrs. Miller went to...

0302 When she opened...

0303 ...what she [©] _{to} told her...

Hernando omits, totally, only six words in both stories. None of these seem intentional omissions of "hard" words:

(C) ^{to} was in a field (S53, line 0313) (Poor) Freddie was (S53, line 0101)
 even (C) ^{say} ^{isa-} (Uncle) Oscar (S53, line 0326) she ^{was} saying (S53, lines 0214, 0215)
 and
 he forgot himself; he looked (S53, line 0415)

Hernando doesn't produce very many non-words either: only 8% on S51 and 20% on S85.

(C) \$sclamenel excl- explained	(C) \$prenning pretend	\$asceddent accident
(C) \$alphonnd alphabet	(VC) \$stomiss stonge stomache	\$nen numb
\$excamned escaped	\$drididled dribbled	(VC) \$scrambled sumple scrambling

Clearly, there are some problems with unfamiliar words, but notice that Hernando is producing phonic near misses which often retain inflectional suffixes. That's what native speakers of English do. The strategy he uses here is quite different than that which produces his rates of substitutions with no phonemic similarity.

So in Hernando, we see a bilingual rural boy who has an unusual set of strategies of plunging ahead while cautiously self-monitoring. The strategies work well in reading S51, but partially break down on S85, the quite relevant story. Still he gets a lot of meaning from both stories. While it's clear from his reading that he has Spanish influence on his use of English, he shows no patterns in his miscues that would indicate any lack of control of basic English syntax. There is, in fact, no pattern in his reading which appears to be peculiar to his bilinguality.

Texas Spanish Fourth Grade

Table 6-2 presents summary data on the TS4 group. All subjects do better on S51, except TS119 who finds the stories about equally difficult. TS119 produces about the same amount of MPHw in both stories, and almost the same proportion of dialect. But he has a better comprehending score on S85 and therefore a lower residual MPHw. The group mean for residual MPHw on S51 is the lowest of all eight groups, 2.48.

Table 6-2

TEXAS SPANISH FOURTH GRADE GROUP STATISTICS

Subject Number Story Number	111		112		113		119		GROUP MEANS	
	51*	85**	51	85	51	85	51	85	51	85
Total Miscues	92	154	152	257	78	141	70	102	98	163
Coded Miscues	54	55	51	58	53	58	55	55	53	56.5
MPHW	6.56	10.48	10.78	14.83	5.62	8.43	5.89	5.91	7.2	9.91
Dialect Miscues	4	3	2	8	5	8	5	6	4	6.3
MPHW	.49	.57	.42	2.05	.53	1.16	.54	.64	.50	1.11
Percent	7.4	5.5	3.9	13.8	9.4	13.8	9.1	10.9	7.5	11
Non-Dialect Miscues	50	52	49	50	48	50	50	49	49	50
MPHW	6.08	9.9	10.36	12.79	5.09	7.27	5.35	5.26	6.72	8.8
Residual MPHW	2.67	6.29	1.69	7.16	2.33	3.05	3.32	2.69	2.48	4.8
% corrected	26	9.6	55	30	25	30	16	20.4	30.5	22.5
% sem. acceptable	38	30.8	38.8	20	35.4	42	28	36.7	35.1	32.4
% sem. unacc. but corr.	18	5.8	44.9	24	18.2	16	10	12.2	22.8	14.5
Comprehending percent	56	36.5	83.7	44	54.2	58	38	49	57.9	46.9
% syn. acceptable	54	67.3	49	46	66.7	82	58	71.4	56.9	66.7
Proximity means										
graphic	5.74	5.28	4.42	5.32	5.98	6.34	6.09	6.22	5.56	6.04
phonemic	5.37	5.49	3.50	5.05	6.07	5.32	5.96	5.83	5.22	5.17
syntactic	7.42	8.43	7.54	8.21	7.81	8.49	8.36	8.09	7.78	8.31
semantic	6.95	7.00	7.11	6.4	6.18	5.52	5.83	6.39	6.52	6.33

* S51 Freddie Miller, Scientist

**S85 Sancho

Range for residual MPHWS is narrow, 1.69 to 3.32% on S51. Residual MPHWS mean is 4.8 on S85 with 2.69 to 7.16 range.

All subjects produce more dialect and second language miscues on S85, Sancho, the culturally relevant story.

Though TS111's percent of dialect is lower because total MPHWS is much higher on S85, mean dialect percent of these fourth graders on both stories is low for the four second language groups.

The percent of semantically acceptable miscues in this group has a relatively narrow range on S51, 28 to 38.8%, but the range is from 20 to 42% on S85. Both TS113 and TS119 actually have higher percent semantically acceptable on S85.

Successful correction varies more: 16-55% on S51, 9.6 to 30% on S85. Attempted corrections, except for Hernando, are 24-30% and 15-44%.

Reactions to S85 are most variable: TS111, like Hernando, falls off dramatically in correction and semantic acceptability with the result of only 36.5% comprehending, compared to 56% on S51.

But TS113 and TS119 actually do more correction and have higher comprehending percents on S85. With TS113, this still leaves her with a higher residual MPHWS on S85 than S51. This group tends to correct more when the OR is a function word or indeterminate. On S51 they correct 74% of miscues with no phonemic similarity. They correct 53% of miscues semantically acceptable with prior but only 23% of semantically unacceptable and 20% of those fully acceptable. In S85, most likely to be corrected are those acceptable with prior or those acceptable except for other miscues. Syntactically unacceptable or acceptable only with prior are most likely to be corrected.

Just about 65% of all TS4 miscues are semantically unacceptable on both stories. But on S51, 33% are completely unacceptable and 32% are partially acceptable, whereas on S85, 42% are fully unacceptable and 26% are partially so.

For syntactic acceptability, the pattern is different. In S51, 16% are unacceptable, 27.6% partially acceptable, 56.2% acceptable. Syntactic acceptability of miscues on S85 shows 13%, 20.4%, and 66.7%. That, perhaps, shows that it is not trouble with syntax, per se, that makes S85 more difficult for these readers.

Most miscues that involve bound morphemes for this group are on inflectional suffixes, but 83% on S51 and 91% on S85 involve no bound morphemes. About half of bound morpheme miscues are omissions.

Graphic and phonemic proximity means are moderate for this group. Graphic means are higher (5.56 on S51, 6.04 on S85) than phonemic (5.22 and 5.17) as is true with most groups. Only Hernando stands out with relatively low means.

Retelling scores are all higher on S85 than S51, except for TS111, who has 33% and 34% on the two stories. TS119 has 70% on S85 and only 44% on S51. Like Hernando, the group seems to get as much or more meaning from the culturally relevant story, even though it tended to be more difficult reading.

TS4 miscues examined for syntactic acceptability show higher partially acceptable miscues on S51, 27.6%, compared to 20.4% on S85. That's offset by higher fully acceptable miscues on S85, 56.7% compared to 46.2% on S51.

Transformations produce more changed structures on S51 for all subjects and the group than on S85; means are 52.5% compared to 39.8%. But 51.2% of S85 miscues have no transformations compared to 38.9% on S51.

Semantic acceptability analysis shows lower rate of fully unacceptable miscues on S51, 33.2% compared to 41.8%, but higher partial acceptability than on S85, 32.1 compared to 25.9 and full acceptability, 23.1% contrasted with 12.9%. Sentence only acceptability and acceptability in sentence or passage except for other miscues are all somewhat higher on S85.

Only one TS4 subject, TS111, Cindy, shows much omission, 17.6% on S51 and 15.7% on S85.

Again, none of her omission miscues seem to be deliberate avoidance of hard words. Those omitted are: was, not, the, all, with, to, her, hind, how, it, out, a, end, for, to you, at them, I, after. All of these are read at least once correctly elsewhere in the stories. Some of her omissions may reflect minor variations in her English patterns.

You (are) just like (S51 line 0204)

Rosita (was) a Mexican woman (S85 line 0211)

When the calf died too, (the) loss was double (S85 lines 0220, 0221)

Freddie told (how) he had fixed. (S51, line 0501)

Many others of her omissions are either dispensible or corrected.

Eight percent is the top rate of TS4 insertion; that's TS112 on S51. Group means are 3 and 3.5%. Non-word substitutions, however, are more common, 8.2-22.4%, with a mean of 16.2% on S51; 19.6-28%, with 22.9% as mean on S85. This is a common fourth grade pattern: few omissions, with non-words representing unsuccessful attempts.

The non-word substitutions of TS113 on S51 include: \$disspepi-ments/disappointments; \$cemitar/chemistry; \$outlineded/outlined; \$exslide/explode; \$surefully/surely; \$tribble/terrible; \$kellar/cellar; \$returneded/returned; \$nighbor/neighbor; \$replee/reply; \$trainson/transom; \$inted/intended; \$bloob/bulb; \$windowing/winding; \$escitededy/excitedly. And on S85: \$stringle/struggle; lifed/lifted; \$dubt/doubt; \$straved/starved; \$lively/lively; \$adoeb/adobe; \$stucked/sucked; \$nuggled/nudged; \$fibly/feebly; \$frivless/frijoles; \$shoothing/soothing; \$snifting/sniffing; \$cendred/uncertain; \$shooted/scolded; \$spairing/sprawling; \$buidled/bellowed; \$ton-gue/tongue; \$sendeded/scented; \$tagru/tigre; \$digblast/dingblasted; \$hoves/hooves.

These non-word substitutions show several characteristics: 1) Close phonic correspondence in virtually every case; furthermore, it is an English phonics predominantly; 2) A few base confusions (outlineded); 3) Some suggestion that the subject sounds out unfamiliar words and can't confirm because of limited English vocabulary; 4) Some English words may be known but mispronounced: lively/lively; 5) Lack of expectation for Spanish words in an English text: tigre, adobe, frijoles; 6) The possibility that this reader learned to read English before it was well understood. The child's mother still speaks only Spanish and the home is a strongly Spanish-speaking one.

Texas Spanish Second Grade

These readers found S44 and S86, "My Name is Miguel", of variable difficulty. All except TS106 have higher coded MPHW and non-dialect MPHW on S44, Kitten Jones. The non-dialect MPHW for TS101 on S44, 14.86%, is almost double that on S86, 7.96. Mean non-dialect MPHW is 8.63 and 6.76. But all have higher correction rates on S86 again, excepting TS106, who has 30% on S44 and 28% on S86. Correction means are 24.9% and 34.2%.

Semantic acceptability is higher for all subjects on S44, with means of 47.6% on S44 and 36.7% on S86. All but TS103 (with 42.9% and 44%) have considerably higher syntactic acceptability on S44 than S86. Means are 65% and 49.3%.

The net effect of these variations is that each subject has similar comprehending percents for the two stories ranging from about 53% for TS103 on both stories to about 78% for TS106. Group means are 66.8% on S44 and 64.4% on S86. Residual MPHW is more different across stories for individuals. TS101 has 6.5 and 3.5; TS103 has 2.26 and 1.66; TS104 has 1.12 and 1.2; TS106 has 1.99 and 2.66. Means are 2.97 for S44 and 2.25 for S86.

TS104, Flora, shows a very unusual pattern on the two stories. She has low correction, 11.8% on S44, with high semantic acceptability, 64.7%; with all corrections on semantically unacceptable miscues, her comprehending percent is 76.5%. But on S86 she has 44.9% correction and only 38.8% semantically acceptable. That yields 73.5% comprehending. She has low residual MPHW for the group, 1.12 and 1.2.

Table 6-3

TEXAS SPANISH SECOND GRADE GROUP STATISTICS

Subject Number Story Number	101		103		104		106		GROUP MEANS	
	44*	86**	44	86	44	86	44	86	44	86
Total Miscues	92	105	38	55	45	68	71	141	61.5	92.3
Coded Miscues	53	53	38	55	45	54	52	51	47	53.3
MPHW	16.41	8.44	5.34	3.80	6.32	5.00	10.36	11.31	9.61	7.14
Dialect Miscues	5	3	3	5	11	5	2	1	5.25	3.5
MPHW	1.55	0.48	.44	0.35	1.54	0.46	0.40	0.22	.99	.38
Percent	9.4	5.7	7.9	9.1	24.4	9.3	3.8	2.0	11.4	6.52
Non-Dialect Miscues	48	50	35	50	34	49	50	50	41.75	49.75
MPHW	14.86	7.96	4.90	3.46	4.77	4.54	9.96	11.09	8.63	6.76
Residual MPHW	6.50	3.50	2.26	1.66	1.12	1.20	1.99	2.66	2.97	2.25
% corrected	29.2	38.0	22.9	26.0	11.8	44.9	30.0	28.0	24.9	34.2
% sem. acceptable	31.3	24.0	34.3	30.0	64.7	38.8	60.0	54.0	47.6	36.7
% sem. unacc. but corr.	25.0	32.0	20.0	22.0	11.8	34.7	20.0	22.0	19.2	27.7
Comprehending percent	56.3	56.0	54.3	52.0	76.5	73.5	80.0	76.0	66.8	64.4
% syn. acceptable	64.6	48.0	42.9	44.0	76.5	49.0	76.0	56.0	65.0	49.3
Proximity means										
graphic	5.58	5.36	6.33	5.70	6.09	5.80	5.08	4.69	5.77	5.39
phonemic	4.84	5.18	5.25	4.93	5.52	5.23	4.47	3.75	5.02	4.77
syntactic	7.71	7.83	7.87	6.59	7.65	6.21	7.26	6.64	7.62	6.82
semantic	6.20	6.08	7.08	6.47	6.41	6.32	7.07	6.33	6.69	6.30

* S44 Kitten Jones

**S86 My Name Is Miguel

It seems Flora uses two very different strategy patterns in the two stories. Including unsuccessful corrections, she attempts correction on 53.1% of S86 miscues, and 14.7% of S44 miscues. In reading S44, her initial attempts produce semantically acceptable miscues which go largely uncorrected. In reading S86, her first efforts lose more meaning, but through self-monitoring and correction, she maintains a high comprehending rate.

TS101 and 103 respond differently to S44 with high percents of attempted corrections, 54.9 and 51.4, respectively, and high rates of unsuccessful attempts, 23.5 and 28.6%. TS101 attempts correction on 58% of all miscues and is unsuccessful with 20% on S86.

Retelling scores for the group are moderate and comparable except for TS106, who has 62% on S44 and 40% on S86. Means for the group are 48% for S44 and 45% for S86.

The TS2 group corrects 47.4% of both syntactically unacceptable miscues and partially acceptable miscues on S44. Only 14% of syntactically acceptable miscues are corrected. In reading S86, 51.6% of syntactically unacceptable miscues are corrected, and 42.9% of partially acceptable are corrected. Twenty-one percent of acceptable miscues get corrected.

In S44, TS2 corrects 47% of miscues with partial semantic acceptability, 29.3% of totally unacceptable miscues, 17.6% of miscues semantically acceptable in the sentence, and only 8.2% of those fully acceptable. Reading S86, TS2 corrects 45.5% of those with no semantic acceptability, 42.6% of those partially acceptable, 25% acceptable in the sentence only, and 13.6% completely acceptable. In both stories, high percents of semantically unacceptable miscues involve unsuccessful correction, 34.1% on S44, 20.5% on S86.

Higher than predicted percent of verbs and function words, 41.2% and 41%, are corrected, while only 16.7% of nouns and 14.8% of noun modifiers are corrected on S44. Unsuccessful attempts of 23.2% on verbs and 29.6% on noun modifiers are high.

S86 shows 43% of substitutions corrected. Verb correction, 55.2%, exceeds that figure. Seven of ten indeterminates are corrected (70%). Unsuccessful corrections are higher than the group average of 10.9% on nouns (17.6%) and noun modifiers (33.3%).

On S44, 36.8% of miscues with common phonemic ER and OR beginnings (sub-category 4) were corrected. Average percents of miscues with high and no proximity (0 and 8) are corrected in S44.

While 45.2% of all miscues and sub-miscues coded for phonemic proximity on S86 are corrected, 52.9% of miscues with no phonemic proximity (0), 57.9% with common end sounds (3) and 61.1% of miscues with only single differences (8) are corrected.

High corrections seem to result from other than phonics concern for S86.

Graphic means for TS2 are 5.77 and 5.39. Phonemic means are 5.02 and 4.77. Phonemic range is low, 3.75 to 5.23 on S86, 4.47 to 5.52 on S44.

The TS2 mode for both stories in graphic proximity is a single letter difference, 33.6% for S44 and 41.8% for S86. Few miscues have no graphic proximity between ER and OR.

A similar pattern shows on phonemic proximity; 33.6% and 32.8% have single phoneme difference. But 16.8% and 15.7% have no phonemic elements in common. For TS106, this figure is 25% on both stories. These patterns reflect the greater use of graphic than phonemic information we've noted often.

As might be expected with the generally higher syntactic acceptability on S44 than S86, TS2 has only 11.2% totally syntactically unacceptable on S44 and 22.5 partially acceptable, compared to 15.6% and 35% on S86.

The difference is largely in the partially acceptable category. But another syntactic acceptability difference is that fully syntactically acceptable miscues are 57.4% on S44 and 35.7 on S86, with 8.3% fully acceptable except for other miscues on S44 and 12.1% such miscues on S86.

Transformations show a sharp difference in the way miscues relate to the syntactic complexity of the two stories TS2 read. Whereas 40.8% of S44 miscues show no transformation, only 17.6% of those on S86 show no transformations. The difference is not largely in lost deep structures, 8.3% on S44 and 11.1% on S86 are of that type. But 49.1% of S44 produced changed deep structures while 68.3% do so on S86. These patterns show for each subject as well as the group.

Perhaps one contributing factor here is the use of somewhat strange syntax in the latter story to denote a second language speaker of English.

Here's an example:

0316 "But I go to learn! Is it not a good
0317 thing to learn, my son?" Mr. Diaz asked.
0401 Mr. Diaz answered, "I do not go to your
0402 class in the morning. I go to a class at night.
0403 All the people there are big now. But our

0404 teacher does not think we are too old to go
 0405 to school. She is glad we all want to
 0406 learn. That is why she comes to night school
 0407 to help us.

The principle differences in distribution of miscues judged for semantic acceptability on the two stories are in those partially acceptable, 27.8% on S44 and 41.2% on S86, and on those fully acceptable, 29% on S44, compared to 16.6% on S86. Complicating miscues in the same sentence did not have any more effect in one story than the other and fully unacceptable miscues are comparable, 24.3% and 22.1%.

TS103 shows a somewhat deviant pattern of miscues in that 22.9% on S44 and 34% on S86 do not involve word level. This directly relates to the subject's high rate of intonation miscues, 25.7% on S44 and 44% on S86 (see Chapter IV Intonation). While all subjects show more intonation miscues on S86, again probably reflecting its less predictable syntax, no other subject exceeded 18.4% on S86.

TS104 and TS106 both show moderate amounts of word level insertions and omissions on both stories, with omissions for TS106 reaching 25.9% on S86. The other subjects show almost no insertions and few omissions.

The TS2 subjects show a few word level reversals. TS104 has the most, three in the coded portion on S86:

will you help me before (line 0102)

Is it so bad (line 0304)

Hello, Mr. Diaz, Miss Winters said (line 1301)

All of these involve predictions that produce syntactic shifts and all are corrected, again showing TS104's self monitoring.

Only one subject, TS101, produces any appreciable amount of non-words, 18.9% on S44. That subject has the most on S86, too, but drops to 5.9%. All other subjects have few or none on both stories. Like many second graders, the TS group prefers omission to attempting non-words. TS106, high in omissions, produces no non-words in either story.

All subjects produce some peripheral field miscues, but TS106 has 35.1% on S44, dropping to 21.6% on S86, close to the mean of 20.2% for the group on that story. Mean on S44 is 22.6%.

Table 6-4

TEXAS SPANISH SIXTH GRADE GROUP STATISTICS

Subject Number Story Number	123		126		127		129		GROUP MEANS	
	53*	77**	53	77	53	77	53	77	53	77
Total Miscues	321	370	165	246	246	359	180	231	228	301.5
Coded Miscues	55	56	53	53	53	52	57	54	54.5	53.8
MPHW	17.2	11.8	10.2	7.1	14.9	12.0	7.1	10.9	12.3	10.5
Dialect Miscues	5	6	3	3	3	3	6	3	4.3	3.8
MPHW	1.6	1.3	0.6	0.4	0.8	0.7	0.8	0.6	0.9	0.7
Percent	9.1	10.7	5.7	5.7	5.7	5.8	10.5	5.6	7.8	7.0
Non-Dialect Miscues	50	50	50	50	50	49	51	51	50.3	50.0
MPHW	15.6	10.6	9.6	6.7	14.0	11.3	6.4	10.3	11.4	9.7
Residual MPHW	8.4	3.4	3.7	1.5	7.6	4.4	3.0	2.0	5.7	2.8
% corrected	16.0	16.0	22.0	24.0	16.0	18.4	29.4	29.4	20.9	22.0
% sem. acceptable	32.0	54.0	50.0	62.0	32.0	51.0	33.3	68.6	36.8	59.0
% sem. unacc. but corr.	14.0	14.0	12.0	16.0	14.0	10.2	19.6	11.8	14.9	13.0
Comprehending percent	46.0	68.0	62.0	78.0	46.0	61.2	52.9	80.4	51.7	71.9
% syn. acceptable	64.0	60.0	60.0	78.0	48.0	61.2	62.7	78.4	58.7	69.4
Proximity means										
graphic	5.6	5.4	5.7	4.6	5.8	5.0	5.5	5.3	5.6	5.1
phonemic	4.5	5.3	4.6	4.2	5.6	4.7	5.5	4.9	5.1	4.8
syntactic	7.7	7.3	8.0	6.9	7.3	7.1	7.4	7.2	7.0	7.1
semantic	6.5	5.8	6.3	6.5	5.8	7.0	6.6	6.7	6.3	6.5

* S53 My Brother Is A Genius

**S77 And Now Miguel

Texas Spanish Sixth Grade

Our TS6 group all have less difficulty with S77, a chapter from And Now Miguel, than they do with the standard story, S53. S77 is longer and produces considerably more miscues, but residual MPHw is lower for all TS6 readers on S77 than on S53. So is coded MPHw, except for TS129, who has the group low on S53, 7.1%.

Correction means are similar for both stories, 20.9% and 22% for the group.

For all but TS129, dialect percents are about the same for both stories: about 10% for TS123, under 6% for TS126 and TS127. TS129 has 10.5% on S53 and 5.6% on S77.

Mean non-dialect MPHw for TS6 is 11.4 for S51 and 9.7 for S77; residual MPHw is 5.7 and 2.8. The range of residual MPHw is narrower, 1.5 to 4.4 on S77; it is 3.0 to 8.4 on S53.

Furthermore, each reader corrects a similar percentage on both stories, though that varies from 16% for TS123 to 29.4% for TS129.

The big difference for these readers is in semantic acceptability. As individuals and as a group, they have much higher percent semantically acceptable on S77 than on S53. Means are 59% and 36.8% respectively.

Comprehending percents reflect these differences. Means are 71.9 for S77 and 51.7% for S53.

Three of the four subjects show higher syntactic acceptability on S77 than S53, but TS123, John, has 64% on S53 and 60% on S77. In fact, he has the highest syntactic acceptability for that story, though he is tied for lowest semantic acceptability.

The high syntactic acceptability of John on S53 does not reflect high non-word substitutions, in fact only 9.8% of his miscues were non-words, average for the group.

This bilingual reader seems to be able to hold onto syntax even when meaning is lost.

0207 My baby brother Andrew made a few ^{Sunny} silly baby sounds

0208 ^{begin} and began to cry.

0209 ^{Philippa} "Philosophical!" ^{cried} I shouted. ^{so} "Go ahead and cry! Cry

- 0210 all you want to! ^(C)I ^(UC)don't ^(C)dis- ^(d)begin
 It won't disturb me!" But I began to
- 0211 feel a little foolish ^(d)and ashamed. ^(C)hemmed ^(C)Ask ^(C)After all, it ^(w-)wasn't
- 0212 Andrew ^(d)'s fault that I had to stay home with him.
- 0213 ^(C)I ^(d)learned ^(d)I leaned on the baby bed. "You ^(d)see," I said, "it ^(s)helps
- 0214 me to remember the word definitions if I read them out
- 0215 loud. They impress my mind better that way." Andrew
- 0216 ^(C)s- ^(d)stopped crying and ^(d)cried ^(d)tried to take hold of the dictionary.
- 0217 "Let's see what ^(d)we can find in the S's," I said.

In this excerpt, John is using a great deal of syntactic information. Note in line 210: I don't/it won't; line 211 hemmed/ashamed; line 213 feel/see; line 216 cried/tried; line 217 you/we. In each case syntax is acceptable though meaning is not always acceptable.

TS6 does produce more non-words, 10% with a range of 5.8% to 12.5% on S53 than on S77 which has only 1.9% non-words, with a range from 0 to 3.8%.

Two of the subjects produce substantial word omissions on both stories: TS126 has 19.2% on S53 and 14.8% on S77, TS127 has 9.6% on S53 and 14% on S77.

TS126, Alicia, shows two very different kinds of omissions. In this paragraph, early in the story, she uses a deliberate strategy of omitting words that look hard:

- 0201 So (education) it was! I (opened) the dictionary and picked
- 0202 out a word that sounded good. ("Philosophical!") I yelled.
- 0203 Might as well study what means word meanings first. ("Philosophical:")

0204 showing calmness and courage in the face of ill fortune."

0205 I mean I ^{already} really yelled it. I guess a fellow has to work off

0206 ^{stream} steam once in a while.

She uses this strategy less as the story progresses, though she omits philosophical all of the seven times it occurs. Still she is able to deal with the principal concept involved in the retelling -- the unusualness of a baby saying big words:

"He put his finger at Andrew and told him to say daa, he didn't say daa, he said another word and then he was surprised I guess and went and sat down with his legs open and his hands pointing at Andrew's big brother."

The researcher asks her "Were there any other words that gave you trouble?"

S: I had trouble with this one (pointing to education, which she omitted all three times it occurred).

R: What is it?

S: I said it, oh how'd it go (pause) ed-, edu-, \$editjuct-, I mean \$edujution - something...

R: What does it mean?

S: With school, something with school.

Two points are demonstrated here. Her intentional omissions do not mean she has no idea what the word would sound like. Neither do they mean she has no idea of the meaning. This type of omission is a strategy for avoiding risk-taking when she's afraid she'll be wrong.

But later omissions include these examples from S53:

0209

Cry

0210 all you want to

0221

We're supposed to

0222 learn a certain number of definitions for English class each

0223 week.

0307 "Andrew," I said, "You are my project. And not only

0308 that, but you may be a real valuable gold mine.

0323

"I want to sell my little

0324 brother.

0508 "And so you could just pick my little brother," I said.

0612

"Be at the station

0613 with that fine baby...

1115

...but by then the program was

1116 over, anyway.

These omissions all are words which can be omitted without rendering the structure completely meaningless or ungrammatical. And she has a strong tendency to correct them. Furthermore, Alicia has already read, or subsequently reads, most of these words so their omission is incidental rather than intentional.

Insertion for TS6 make up 5.9% of S53 miscues and 8.5% of S77. No TS6 reader shows more than 10% on either story.

TS6 corrects most heavily the miscues only partially syntactically acceptable, 47% on S77 and 35% on S53; they correct 35% on S77 and 32.4% on S53 on syntactically unacceptable miscues. Unsuccessful corrections are only 7.5% on S77 and 8.5% on S53. Heaviest correction is on miscues semantically acceptable with prior, 43.9% on S77 and 35.8% on S53. Next comes miscues semantically acceptable in sentence only, 36.8% on S77 and 25% on S53. TS6 tends to correct miscues involving verbs, function words, and contractions on S53. Corrections of substitutions is 22.8% but 30.6% of miscues with verb OR's are corrected 32.4% of function words, and 41.7% contractions while 14% of noun OR's are corrected. Similar patterns show on S77. With 23.9% corrections, 18.2% of nouns, 29.4% of verbs, 27.5% of function words and 50% of contractions are corrected.

On S53, 36% of miscues with no phonemic relationship between ER and OR are corrected, but there is no similar trend on S77.

Graphic and phonemic proximity means for the TS6 group are moderate: 5.6 and 5.1 for S53, 5.1 and 4.8 for S77. The modal graphic sub-category for the group is 8, a single letter difference; 35.9% of all substitution miscues on S53 are of that type as are 27.7% on S77. Only 10.5% and 12.7% have no graphic similarity between ER and OR. Single sound difference is the modal category for TS6 in phonemic proximity, 31.4% on S53 and 28.3% on S77 are in this sub-category. But fair numbers of miscues on both stories have no phonemic similarity, 16.9% on S53 and 22.9% on S77. As with many other groups, there is more use of graphic than phonemic information.

These Spanish-English bilinguals seldom lose the deep structure completely; only 13.4 of S53 miscues and 6.9% of S77 miscues involve loss of deep structure. Changes to a different deep structure are 52.2 and 62.5%; about 30% of the miscues in both stories produce no transformations.

A sharp difference between miscues on the two stories show when the miscues considered semantically acceptable are broken down. Whereas 40.3% of the S77 miscues are fully acceptable semantically, only 14.4% are on S53. But 11.9% of S53 miscues would be fully acceptable except for other miscues. There are 7.5% of such miscues on S77. Six percent of miscues are semantically acceptable in sentence only on S53, while 9.5% are on S77. Conversely, 30.8% on S53 are fully unacceptable semantically and 32.4% are partially semantically acceptable. For S77, these figures are 16.4% and 24.9%.

All TS6 readers except Alicia (TS126) have higher retelling scores on the more relevant S77. She has 56 on S53 and 52 on S77. For the others, their scores on S77 are notably higher. In this case, the more relevant story is both easier to read and better comprehended.

Alicia has 30% intonation miscues on S77. Several of these are involved in dialogue:

0207 ^{am}
I said, "Pretty good," because

0208 what's the use telling everybody

0209 your troubles?

0216 ^{like}
"Now look, Juby," I said.

0217 "What's the use...

0231 "Then you did lose some

0232 sheep?"

0233 "Juby!" I was ^{so} little excited.

0312 "Juby," I said. "You and me,

But there are also some other intonation miscues:

0113 That is Juby and some of the

0201 others ...

0203 ... he waved his hand and

0204 quite quit, and came over.

0316 "Then tell me ^{you} where are the

0317 sheep?"

0329 This
That is for me."

0502 ... swing-

0503 around
ing all round My arms, feeling

0504 like I had a dozen of them, each

0505 one going off by itself. My feet

0506 looked
like being on a bike,...

0507 But I couldn't

0508 balance. Except by jumping I

0509 couldn't stop.

0530 And then I

0531 landed On my face.

This group of miscues seem more closely related to the author's style. At times the reader is coping with fragments punctuated like sentences. By page seven, such miscues become less frequent as the reader becomes more attuned to the stylistics. In neither case is there anything particular to Alicia's Spanish or bilingual background involved in these miscues. Her intonation reflects syntactic predictions which may not match the author's choices, but which reveal the reader's knowledge of English.

Table 6-5

IDENTICAL FUNCTION SUBSTITUTION:

TEXAS SPANISH SIXTH GRADE GROUP

	Noun	Verb	Noun Marker	Verb Marker***	Function Words	Indeter- minant	Contraction
S53*	64.3	80.0	71.4	33.3	54.1	70	38.5
S77**	88	62.1	80	--	61.7	--	50.0

* S53 My Brother Is A Genius

**S77 And Now Miguel

***Frequency of VM miscues too low to be significant

TS6 subjects show relatively high rates of identical grammatical function substitutions (See Table 6-5). Except for Verbs, the percentages are higher on S77 than S53. Here's another verification of the competence in English syntax of these subjects.

The Hawaiian Samoan Group

Our Hawaiian Samoan subjects live in the same inner city community and attend the same Honolulu schools as our Hawaiian Pidgin subjects. They are Polynesians, migrants from American Samoa to Hawaii. Their Samoan language is a close relative of Hawaiian, Tahitian, Maori. Their homeland culture is more like the culture of old Hawaii than anything found in Hawaii today except in isolated pockets and in nostalgic preservations.

Samozns bring their village clan structure to Hawaii. Their chiefs maintain great influence and prestige. Many Samoans have continuing contact with home.

The flow of immigration from American Samoa is through Hawaii to the mainland west coast. From Western Samoa there is a similar out-flowing to Auckland, New Zealand.

Ironically, though they closely resemble in language and culture the indigenous inhabitants of Hawaii, they are the least assimilated of any of cosmopolitan Hawaii's ethnic populations.

Our subjects all come from homes in which Samoa is the first language.

Our second grade subjects were unable, as a group, to read Kitten Jones (S44), the standard second grade story. We had to use Two New Hats (S26) and The Big Surprise (S28), short first grade stories as alternatives. Whether this situation results from lack of control of English or another cause, perhaps cultural, we cannot determine. HS fourth and sixth grade subjects were able to cope with the standard stories.

The picture that emerges of the English language of our HS readers is basically one of strong evidence of Pidgin with little explicit example of influence of their Samoan first language.

The latter examples are mostly phonological. Samoan, a Polynesian language, has limited numbers of consonants. There is no p/b contrast, so we find these substitutions: palance/balance, plades/blades, Pora/Bora, pow/bow, put/but, bayed/paid. With no k/g contrast we get: classed-in/glassed-in, claring/glaring; culping/gulping; clowed/glowed; kill/gill; crab/grab; casper/grasp; becan/began. l/r contrasts are also absent in Samoan. We find: craffs/cliffs, bread/blade, growing/glowing. Aspiration appears or disappears before certain vowels: has/as, air/hair, is/his, his/is, hope/opened, 'ome/home. Some w/v merging appears: wow/vow, woyd/vowed.

There is also relatively consistent /d/ for /d/ as in the /t/ for /t/ as in think.

š appears for s before t or tr as in shtrong, shstreet, etc.
š, j, z are substituted: encourash/encourage, pazh/page

All this is overlayed by the phonology of the pidgin version of English they are learning.

We lack sufficiently complete descriptions to judge where Samoan influence leaves off and Pidgin begins.

In their retellings our readers show these features:

Deletion of -ed in verbs

Omission of -ed is common with all three allomorphs showing involvement: /d/ pushed, tried, answered, escaped, pulled, showed, called; /t/ walked, touched, fixed, reached, looked; /id/ wanted, cheated, started, scolded. There are also some irregulars: wake/woke, throw/threw, teared/tore, keep/kept, think/thought, know/knew, give/gave, do/did.

Deletion of -s on verbs

There are only a few examples of -s form deletions: If he lose, he get angry, my teacher say.

Deletion of noun -s

Examples for this category also are few: plenty animal, sometime/sometimes. We also find stuffs and stuffses for stuff.

Deletion of Noun plus Possessive

There are no examples in the retellings.

Other Verb Forms

They was walking, two guys was sliding, they was talking, guards was running; Umi seen, he seen.

Pidgin Verb Influences:

They came friends, she lock in closet (was locked), they was saw him, was feel sorry, was goin' cheat, wen' geeve heem one b'loon, he wen' saw, wen' jump, wen' ring, wen' go, wen' fix, wen' race/

Be Omissions:

where he driving, she not sponse to do, he gonna lose, he goin' throw

Do:

he do something wrong, he do bad stuff, what he do, what (do) you mean

Get (have):

Get one nest hat. Da clown get big nose.

For in Infinitives

he wen' for take walk, told him for do, told him for go buy, experiments for make a flashlight

Clause Forms

Dat bad stuff what he did, ...and the direction what his brother told him, He didn't know who was it., He said that what Elizabeth is doing in there.

Prepositions

on top him, finds out of anything

One as Determiner

in side one house, eat one supper

It Deletion

I only like one guy, is my grandmother

Negatives

The man never told him; don't let nobody; no do nothing; no show off, no brag; I never see that; he never did buy her..., dis clock never ring

Da Kine

da kine, you know, da kine propellers
(da kine derived from "that kind" is a pidgin word of wondrous utility)

In their reading, we find our HS readers producing mostly inflectional dialect miscues:

Deletion V-ed

Deletion of all three allomorphs
 /d/: explained, called, discovered, cried, pulled, seemed, climbed, hugged
 /t/: fixed, worked, looked, stopped, picked, touched, clapped, asked, taped, thumped, dropped, rushed, faced, forced
 /id/: sounded, started, added, needed, wanted, dotted, decided, treated, demanded, painted
 reached read as reach-~~id~~
 One subject, HS716, produces mostly supercorrect forms (extra -ed's after past morphemes).
 Irregular: grow/grew, threw/throw, draw/drew, grow/grown, know/known

Deletion N-S

All allomorphs; most examples involve /z/
 /z/: directions, hands, eyes, machines, chemicals, trees, guards, arms, stones, drums, boys, uncles, sleds
 /s/: experiments, roofs, clocks, cliffs
 /ɪz/: reaches, faces, houses
 Quantifier preceding plural s
 three times~~s~~, two inches~~s~~

Deletion V-S

Only examples are work~~s~~, want~~s~~

Deletion N's

king~~'s~~, Freddie~~'s~~, sister~~'s~~, Umi~~'s~~, one~~'s~~, man~~'s~~, scientist~~'s~~, parent~~'s~~, Elizabeth~~'s~~

Be Omissions

It~~'s~~ not so bad
 It~~'s~~ not scary
 You~~'re~~ just like
 he~~'s~~ just like
 it~~'s~~ stuck

There are a few ly involvements: \$straightly/straight; fearful/fearfully; angry/angrily.

Our HS subjects show less of the transitional idiosyncratic language than the Arabic subjects. Perhaps again this is masked by the fact that they are primarily moving toward Pidgin and not some mainland form. They seem, in fact, to show more Pidgin in their retellings than the Pidgin group shows. The latter seemed more able to cope with the difference between their Pidgin and the researchers' mainland dialects.

There are these occurrences in the retellings which reflect receptive problems with English:

Researcher: Where did the story take place?

HS 716: What

R: Did anything about the story puzzle you?

HS 716: What is the meaning of puzzle?

In some examples our HS subjects show some lack of productive confidence:

HS 716: then after that, then after that, when was the ending, wait, then, um, I don't know that part.

HS:724 he said -- I don't remember that thing.

Sometimes it's the researcher who shows the comprehension problem:

HS 702: He wen' saw da monkey.

R: He went sort of what?

HS 702: Monkey in da b'loon

R: He was sort of monkey?

HS 702: In da b'loon

R: In the blue? In the blue, um.

HS 702: In da b'loon.

R: In the balloon. OK. Can you tell me anything more about the balloons?

HS 702: He wen' saw plenty animals in da b'loon. He wen' saw da animal, da clown Ted wen' ax de man, "Can I have one", And den da man wen' geeve heem one b'loon, da red b'loon. And den he tol' heem, "Go an' den you can see da beeg show". An' den da boy wen', wen' blow the b'loon. An' den he wen' saw da beeg clown in da b'loon. And da clown get beeg nose.

An Hawaiian Samoan Fourth Grader

Danny (HS 715) is a ten year old Samoan who lives with his mother and step-father in Honolulu. Both of his parents come from American-Samoa; both speak primarily Samoan. Danny's younger sister speaks Samoan and some Pidgin. Danny speaks Samoan and Pidgin. Danny's reading score (Stanford) at age nine placed him in the 19th percentile; his CTMM I.Q. Test at age eight placed him in the 34th percentile with an I.Q. of 93.

Here is Danny's retelling of S51, Freddie Miller:

- R: OK, and now tell me whatever you remember about the story.
- S: About the, Elizabet got hurt by her, by - dis was the brother?
- R: Hmmm?
- S: Dat was the brother?
- R: Who?
- S: Fred-, Freddie.
- R: What do you think? ... What do you think?
- S: Like, just like the brother. Den, den she got broken, they, den ...then da doll, den Freddie said that, no, the mother said...dat go, "Can you buy Elizabet a doll?", then Elizabet said, "No, no, don't leave." Den, den Freddie was making...alarm...den he heard a fake alarm, den...den he, he heard...his, his, his sister Elizabet...with, no, in the closet room, so he made a, um, experiment light, and then, flashlight, with, then...he...he went call mother...and then Elizabet came out and den Mr. Miller, Mr. Miller, and the, the two of them told Mr. Miller about what happened. So mother came home, den Mis-, mother told he just look like...Uncle ...Maxa-man...millan. "You, you just like Uncle Oscar." And then Freddie said, "No, no." So...his sister said..."You just like... you just like your uncle." That's all I know about.
- R: OK, I want to ask you some questions. OK. Uh...let's see, uh, you said that, um, Freddie made experiments. Tell me what experiments are.
- S: Lights...and he fixed da clock.
- R: Uh huh.
- S: And he made out...alarm...alarm.
- R: Uh huh. What's an alarm?

- S: Um, da bell...like da recess bell.
- R: Uh huh. Tell me more about the lights.
- S: About da, he, he, he made it wit da ruler and a battery...and den, den he tied to a string and den, a long string, den went upstairs, and den...da closet room was downstairs and so, he, he told da sister to hold on the ruler...den da light went on.
- R: Uh huh. Where was the light, when his sister had it?
- S: Da sister hold it on top...ef, on, on da roof.
- S: OK. How did he get it to her?
- S: Um...da, she, um, she, da brudder told, the brudder told it, that to hold it by da ruler.
- R: Um hmm. Now where was the sister?
- S: In the closet room.
- R: OK. And, um, how did Freddie get the light to her...in the closet room?
- S: From putting it down, go way down.
- R: OK. What did he put it down through?
- S: Wit da string...long string.
- R: But what did he...you have to put it through something to get it from one side to the other, what did he put it through?
- S: Ruler.
- R: OK. How did he get it, see hi-, the sister's where, in the closet, right? Is Freddie in the closet too?
- S: No.
- R: OK, so he's out of the closet. Now how does Freddie get the light...to Elizabeth who's in the closet? What do you think he does?
- S: I don't know.
- R: Can you guess...from what you remember about the story? How does he get it to her? ...Without looking.
- S: He went upstairs to another room...and then...he called Elizabet... then...he said that, catch, get it, from, get it from da ruler... the side of the ruler.

- R: OK, alright, so Elizabeth had the light, and then what happened?
- S: Then she turned it on...and then it wasn't dark inside...had, sh-, so she could see.
- R: Uh huh.
- S: And then Mr. Miller came, and then, him and Freddie open a door so, uh, Elizabeth came out...then told all da bad newses, and, and Elizabeth was all excited.
- R: What was she excited about?
- S: About...maybe her broken ankle...or, about in a closet was all locked up.
- R: Uh huh. She got out ok though?
- S: Yes.
- R: OK. Now, how did, how did, uh, how did, uh, uh, the peo-, the other people in the house feel about Freddie's experiments?
- S: Bad.
- R: How?...Why?
- S: Cuz he do...someting wrong.
- R: What did he do that was wrong?
- S: He made da ice box smell...um...make mother was gon' faint. Den ...he, he made...everything to mother angry, make make mother angry...
- R: What...
- S: ...dat he not sponse to do.
- R: OK. What else did he do? He, he made this, uh, he made this stuff in the refrigerator, what else did he do?...that made them mad? Did he do anything else that they didn't like?
- S: I don't know.
- R: OK. So, um, um, did, did the, uh, other people in the family feel differently about Freddie at the end of the story, or did they feel the same about him, or what?
- S: Feel the same about it.
- R: Did, um, uh...
- S: But mother...didn't want Freddie to do all dat bad stuff what he did.

- R: And at the end of the story, uh were they happy or sad or what?
- S: Mother was angry first part...cuz...Betty had broken ankle. Den Freddie was, so, so not careful...where he was driving his bike. Then, Mother said, he got, she, he gotta buy, Freddie gotta buy, um,...a doll for...Elizabet...Then Mother got mad.
- R: Why did she get mad?
- S: He do all the bad stuff she not spouse to do.
- R: So they were pretty mad at him, is that right?
- S: Yeah.
- R: Now at the end of the story were they still mad at him?
- S: No.
- R: Why?
- S: They was talking about you just like your uncles are.
- R: Why weren't they mad at him at the end?
- S: Cuz he made something...good...for make his mother, um, happy.
- R: What did he do to make his mother happy?
- S: Take, get out Elizabet from...the closet room.
- R: Uh huh. OK, now, you said the mother was always comparing him to his uncles...um...did Freddie like being compared to his uncles?
- S: I don't know.
- R: Do you, would you like being compared to your uncles? Why?
- S: Just like me...like me, just like what I do.
- R: Oh, but, but, so you mean, would you be doing good things if you were compared to your uncles?
- S: Yep.
- R: Was Freddie doing good things when he was compared to his uncles or bad things or what?
- S: He, he do the same ting like his uncles.
- R: Were they good things or bad things?
- S: Bad things.

- R: Bad things.
- S: The last ending was...the good ting.
- R: The last was a good thing. Who was he compared to at the end of the story?
- S: Mr. Miller, and da mother and da sister Elizabet and Freddie.
- R: OK, but no, who, who did they say Freddie was like at the end of the story?
- S: Like his, um, he's just like...um...Uncle Maximillan...like his uncle...Uncle...Oscar.
- R: OK, some other things I'd like to ask you. Tell me a little bit more about Freddie, what sort of a person was he? What did he do, describe him, what, what he's like.
- S: He's a bad boy.
- R: Bad boy, ok.
- S: He do wrong ting...what, but the mother don't, don't feel...feel bad about what he do.
- R: OK. What else can you tell me about Freddie?
- S: Uh, he do all da bad stuffses and...he just like his uncles.
- R: How about his mother, what was his mother like?
- S: His mother didn't like Freddie dat good.
- R: Why?
- S: Cuz he did all the bad stuff that he...'posed to not do.
- R: OK. And what about the sister?
- S: Hmm?
- R: Elizabeth...what about, tell me something about her.
- S: She was, feel sorry about the, Freddie and Mother was angry to Freddie.
- R: OK. Um. Now, uh, you said that, that people were sort of angry with Freddie because he did all this bad stuff. But then you said at the end of the story that, uh, they were happy with him ...cause he helped his sister: Now, can you learn anything about this story, from this story. Does this, can this story tell you anything or teach you anything?

- S: Teach me about that how Freddie was and...how he was...like just like his uncles.
- R: OK. Um. Is there anything that, uh, that Freddie learned...by the end of the story?
- S: Yeah, he help his sister by...using...his experiments.
- R: OK. Um, is there anything that you wanted to find out while you were reading? Did you have any questions that you wanted to find out at the end? Was there anything that was happening that you wondered, you know, what would happen? You know, one thing you wondered about?
- S: No.
- R: OK. Just a couple of more things that I want to ask you. Um, let's see...Did, did you ever know how to make a flashlight? Have you ever made one yourself...like Freddie did?
- S: No, I only can make dakine, you know dakine, uh, propellars.
- R: Oh, you mean the, the plane type thing?
- S: Yeah.
- R: Uh huh. So you can do that, huh? OK. Um, let's see. Did you like how the story ended?
- S: Yes.
- R: You did? Why did you like it?
- S: About...they...came good friends...da mother was happy, the sister was, Mr. Miller was too.
- R: Was there anything that you would change in the story, that you didn't like?
- S: Freddie was bad and...didn't do what his mother told him for do.
- R: OK. Now, would you have, would you have ended the story the same way or would you have made, have made it different in some way? Would you have had Freddie uh, uh, help his sister at the end or would you have made him stay bad or what?
- S: Anyting.

The effect of Danny's first language on his English and his use of Pidgin shows up in both his retelling and his reading. He uses a null form of be five times in his retelling: "You just like Uncle Oscar", "...he not supposed to do...". Be forms as verb markers are absent sometimes too: "Where he driving". Danny's past tense forms include

many in Standard English, some marked with a null form, and some Hawaiian Pidgin forms. Those with null past tense markers are both regular and irregular verbs: "repeat again", "his father throw him down", "Umi fall on top", and "He do all that bad stuff". Pidgin forms of past tense Danny uses are: something went go repeat, wen' full out, she was feel sorry, Umi jus' wen' jump. Danny's omissions of Standard English noun plural markers and third-person-singular verb markers are almost entirely in his retellings; "repeat two time", "my teacher say", "if he lose, he get angry", "he wake up", "what he do". There are a variety of negative forms in his retelling: "no do nothing", "the guards don't let nobody". Danny also says that when he wins a game, "I no show off, no brag". This non-do form is characteristic of Pidgin.

Danny's reading exhibits some of the same language features as his retellings and others which are not shown in retellings. He uses a null possessive form frequently: "he thought that a scientist's life was filled with disappointments" (S51 lines 0217, 0218); "he heard his sister's voice calling" (S51 lines 0511, 0512). Null forms of be seldom occur in Danny's reading; "there was great shouting" (S69 line 1508, 1509) when they do, they are usually doubtful dialect because of other miscues in the sentence:

jealous
 "He is jealous," (S69, lines 1102, 1103)

Some involve loss of be in contractions: "You're just like," (S51, line 0502), "It's pretty good" (S51, line 0228).

The Royal Race, S69, is read more efficiently by Danny than S51, the standard fourth grade story. His coded MPH_W on S69 is 10.05, compared to 12.26 on S51. With 12.3% dialect on S51 and 13.8% on S69, his non-dialect MPH_W is 10.57 and 8.82.

He corrects 30% on S69, but only 12% on S51. Danny has unsuccessful correction on 24% of S51 miscues and 14% of S69 miscues. The difference in correction is more in his success than his attempts. Though his percent of semantically acceptable miscues is only 38% on S69, that's quite a bit higher than the 24% he has on S51. Actually this difference is all in the miscues Danny has acceptable in sentence only, 16% in S69, but only 2% in S51. He achieves a 60% comprehending score on S69, compared to only 32% on S51. His residual MPH_W is 7.19 on S51, more than double the 3.53 he shows on S69.

Only in his retelling does Danny show better on S51. He has a score of 50 on S51 and only 34 on S69. Mainly that's because his retelling of S69 is fragmentary. He gives no real evidence that he has it all together, though all he says is within the story's meaning.

He enjoyed the story (S69), volunteering "story was good". He understood the brother cheated and shows insight into the lack of sportsmanship involved:

- R: How do you feel when you lose?
- S: Just say, well, if it come to me just, just tell them that was a good game and tell them that maybe next time we do it again.
- R: How do you feel if someone cheats?
- S: Just go-, just ignore, my teacher say that when you challenge somebody and when they win and they come, "Oh, we won, we won," then you just ignore and no do nothing.
- R: How do you feel when you win, Danny?
- S: Just get back where I was, but, oh, no showoff, no brag.

He certainly shows control of a form of English to express himself and understand what he hears and reads.

Danny has 66% syntactic acceptability on both stories. He shows very high graphic and phonemic means for both stories also: 6.61 and 6.24 on S51, 6.29 and 6.21 on S69.

A major difference in Danny's reading of the two stories is that 43.1% of his S51 miscues are non-words, but only 22% are non-words on S51. He has only one omission in the coded portion of either story. And he shows no insertions. His non-words show very high graphic and phonemic correspondence to the ER's. They also tend to retain syntactic acceptability. His real word substitutions also show high graphic and phonemic correspondence as this sequence shows:

- 0214 ^{tink^d} "I think you should buy another doll for Elizabeth," she
- 0215 was saying^λ now? ^{"No,} ^{I won't} ^{have} ^{all-allowance} ^I want you to save half your allowance
- 0216 for it each week."
- 0217 ^{nodded} Freddie ^{nodded} sadly. Sometimes he ^{taught^d} ^{dat^d} that a
- 0218 ^d scientist's ^s life was filled with ^{uc} ^{a, dis-} ^{appointments} ^{i. dis-} ^{appointments.}
- 0219 After the cut in his ^{allowance} allowance, Freddie ^{chemistry} ^{chemistry}
- 0220 ^{uc} ^{nor-rowed} ^{nur-} ^{narrowed} experiments ^d to those safely outlined^d in a library

- 0221 book. But he still ^{taught^d} thought it more fun to ^{pretent^d} pretend to be
- 0222 a great scientist, mixing the strange and the ^{*unkow} unknown.
- 0223 ^{Known} None of the ^{*tchemisals} chemicals in his set was harmful or likely to
- 0224 explode. Yet by ^{*ac-cadident} accident he might discover a ^{*misure} mixture that
- 0225 ^{da^d} would change the world.
- 0226 ^{Gen^d} Then one day Freddie made ^{a^d 2. instretinating} an interesting mixture that ^{a instre - *misure}
- 0227 was dark and cloudy, and had a ^{*quor} queer smell. "I'll keep
- 0228 ^{dis} this for a while," he ^{taught^d} thought ^{happy} happily. "It^s pretty good."

Here Danny produces a lot of English-like non-words, perhaps reflecting still developing control of English.

Hawaiian Samoan Fourth Graders

If we look at group means only, we find both stories of equal difficulty for HS4 as a group. (See Table 6-6) Coded MPHw is 12.11 on S51 and 12.53 on S69. Dialect is 17.8 and 20.4%. Non-dialect MPHw is 10.0 on both. Residual MPHw is 5.78 and 5.84. Correction is 18.4 and 18.2%. Semantic acceptability is 29.7 and 28.7%. Comprehending percents are 44.4 and 41.9. Syntactic acceptability is 63.75 and 63.65%. Even graphic and phonemic means are very close: graphic means 6.16 on S51, 6.13 on S69; phonemic 5.71 and 5.96. These are relatively high.

These similarities conceal rather different patterns among the four subjects. Danny, HS715, as we've noted, found S69 clearly easier. His coded miscues, residual MPHw, percent of correction, percent semantically acceptable and comprehending percent all showed more proficient reading of S69.

HS716 shows an almost opposite pattern. She has similar coded MPHw on both stories, 11.09 on S51 compared to 11.35 on S69 and more dialect on S69, 27.9 compared to 22.2%. Her non-dialect miscues are 8.63 on S51 and 8.18 on S69.

But all other figures for HS716 favor S51: residual MPHw 3.52 on S51 and 6.18 on S69; correction 38.8 and 14.3%, semantic acceptability 26.5 and 16.3%, comprehending 59.2 and 24.5%. Syntactic acceptability is 71.4 and 65.3%.

Table 6-6

HAWAIIAN SAMOAN FOURTH GRADE GROUP STATISTICS

Subject Number Story Number	713		715		716		720		GROUP MEANS	
	51*	69**	51	69	51	69	51	69	51	69
Total Miscues	147	235	143	214	133	251	194	381	154.3	270.25
Coded Miscues	61	65	58	57	63	68	57	60	59.8	62.5
MPHW	10.43	12.50	12.26	10.05	11.09	11.35	14.65	16.22	12.11	12.53
Dialect Miscues	13	16	8	7	14	19	8	10	10.75	13
MPHW	2.22	3.08	1.69	1.23	2.46	3.17	2.06	2.70	2.11	2.55
Percent	21.3	24.6	13.8	12.3	22.2	27.9	14.0	16.7	17.8	20.4
Non-Dialect Miscues	48	49	50	50	49	49	49	50	49	49.5
MPHW	8.21	9.42	10.57	8.82	8.63	8.18	12.60	13.51	10.0	10.0
Residual MPHW	4.44	5.00	7.19	3.53	3.52	6.18	7.97	8.65	5.78	5.84
% corrected	16.7	24.5	12.0	30.0	38.8	14.3	6.1	4.0	18.4	18.2
% sem. acceptable	35.4	26.5	24.0	38.0	26.5	16.3	32.7	34.0	29.7	28.7
% sem. unacc. but corr.	10.4	20.4	8.0	22.0	32.7	8.2	4.1	2.0	13.8	13.15
Comprehending percent	45.8	46.9	32.0	60.0	59.2	24.5	36.7	36.0	44.4	41.9
% syn. acceptable	62.5	63.3	66.0	66.0	71.4	65.3	55.1	60.0	63.75	63.65
Proximity means										
graphic	5.52	6.00	6.61	6.29	6.50	6.63	5.40	5.71	6.16	6.13
phonemic	5.27	6.23	6.24	6.21	6.02	6.25	5.31	5.13	5.71	5.96
syntactic	7.68	7.77	8.82	8.30	8.66	8.47	8.04	7.90	8.3	8.1
semantic	6.05	6.85	7.00	5.84	6.08	5.67	6.29	6.13	6.4	6.1

* S51 Freddie Miller, Scientist

**S69 The Royal Race

Graphic and phonemic means are slightly higher for HS716 on S69 than S51. The subject also shows a bit more syntactic and semantic change in acceptable miscues on S69 than S51.

HS713 and HS720 have higher coded MPHw and non-dialect MPHw on S69. But HS720 has very similar dialect percents, similar low rates of correction, comparable percents semantically acceptable, and virtually identical low comprehending percents. His resulting residual MPHw favors S51, 7.97 to 8.65; not an appreciable difference considering both are high for the group.

HS713 has greater correction on S69, 24.5 compared to 16.7%, but higher percent semantically acceptable on S51, 35.4 to 26.5%. That produces almost identical comprehending percents and residual MPHw that favors S51 slightly, 4.44 compared to 5.00.

Group retelling score mean is 49 on S51 and 41 on S69. Only HS720 is higher on S69 than S51, but his 34 is comparable to HS715 and HS716 with 34 and 33. Actually HS713 has quite high retellings on both stories. HS720 is low on both and the others are in between.

The ranges on most variables for HS4 fall within the ranges for HP4, our other Hawaiian group, on the same stories, though toward the lower ends of these ranges. They show notably more dialect and higher graphic and phonemic proximity means than the Pidgin group on the same tasks.

HS716, Leana, with almost 40% successful correction on S51, deserves closer examination in two regards. That's more than double her correction rate on S69. It also far exceeds any other HS4 subject on S51; in fact, it's the high for HS subjects in all grades on any story. Furthermore, with 30.6% unsuccessful correction she has attempted to correct 69.4% of S51 miscues.

Actually she attempted to correct 65.3% of her S69 miscues, but failed on 51%. She's the subject with many super-correct verbs. She has 32 different verbs with double past tense affixes in S69 alone.

One reason for her high rate of unsuccessful corrections is her heavy use of partial attempts both before miscues and successful attempts. She has 27 corrected partials in the coded portion of S69.

Leana, HS716, S69

0101 ^(RS) ^{(C) s-} Umi stood on the ledge of the

0102 high cliff, looking ^(d) down at the

0103 palace by the ^{(C) sh-} ^{sha-} shore. His heart

- 0104 ^{*thumped} thumped with ^{ex} excitement as he
- 0105 ^{*picketed} picked his way down the ^{*stip} steep.
- 0106 ^{*slopey} slope. He was careful to hide
- 0107 behind tall plants and trees along
- 0108 the way. As he drew ^{UC} closer, he
- 0109 could see the ^C palace ^C guards ^C play-
- 0110 ing a game of checkers. They
- 0111 ^{*seemed} seemed to have no fear of any
- 0112 ^{sh} stranger ^d trying to reach the pal-
- 0113 ^{UC} ace ^{escaped} except by the one main road.
- 0114 ^{RS} Bending low, Umi was able to ^{RS}
- 0115 make his way ^{RS} to the ^C stockade
- 0116 ^{RS} around the building. He ^{*climbed} climbed
- 0117 up the ^{UC} smooth ^{*smothe} posts quickly.

What shows here is a careful, plodding reader. She not only has every past tense ending, but she adds extra ones to be sure. She stops herself in mid-word often to be sure she will get it right.

Her first attempts and unsuccessful correction are high in graphic and phonemic proximity between ER and OR.

She makes two, three, or four attempts at several words. Her semantic acceptability is low on both stories before correction, 26.5% on S51 and 16.3% on S69. Successful correction raises comprehending on S51 to 59.2% and that results in a somewhat better retelling. But still, she seems to lose a lot of the meaning while striving to get the words right. Her strategies are easily strained by a somewhat more difficult task.

Another HS4 subject who deserves special attention is HS713, Menetane. She has 72 in retelling on S51, highest in any group. Her 63 on S69 is also much higher than any other HS reader. Yet her miscue data does not stand out. Comprehending is only 45.8% and 46.9% for her, just about at the group mean. Here's a comparison of Menetane's retelling and her reading. Letters indicate order in her retelling.

Menetane, HS713, S69

0309 Umi needed no one to tell him

0310 that this was the king. One

0311 ^{glance} glance at that ^{dignant} dignified face was

0312 enough. Umi ran straight to the

0313 couch and threw himself into

0314 the king's lap.

0315 Liloa, the king, was angry to be

0316 so boldly treated. He gave Umi

0401 a push that threw him ^{but} ^{to} the floor

0402 ^{but} By this time the guards ^{has} had

0403 reached the hall.

0404 ^{This} Things might have gone badly.

0405 for Umi had it not been for an

Retelling:

He was in the palace with his father.

So his fath- h-

Umi jumped on the couch and on his father's lap.

(Response to later question, "tell me more about the king")

The king was angry when Umi got on his lap. (Why?) He didn't know who was it.

0406 ^(C) ~~eccent~~ accident. As he fell, a package

0407 he had ^(C) ~~brought~~ brought with him broke

0408 open on the floor. There at the

0409 King's feet lay a royal necklace

0410 and a costume of beautiful red

0411 and yellow feathers. (It was a

0412 costume that Liloa had given to

0413 Umi's mother years before.

0414 Liloa rose ^(C) ~~this~~ to his full ^{(K) hate} ~~hi-~~ height.

0415 In ^{the} a terrible voice he demanded ^(d)

0416 "Who are you?"

Then Umi see the necklace that his mother wore.

Then his father speak to him:

"Who are you?"

Menetane, HS713, S69

Retelling:

0501 Umi stood and faced his father

0502 Without fear he answered, "I am

Then Umi answered it. "I am Umi, your son."

0503 Umi, your son. My mother was

0504 [©]AKa-
Akahia, who died long ago."

(Response to question) The boy told him his mother's name.

Notice in the reading of this section, how little basic meaning is lost even though there are a fair number of miscues. She seems to get to the essence of the meaning even while losing some of the words and producing some syntactically and semantically unacceptable sentences.

Most remarkably, she reports both direct quotes verbatim retaining all syntactic features. Later she quotes the king, again verbatim, who tells his subjects, "This is Umi, my son".

Here's an example of a second-language reader who can keep a sense of meaning and not be diverted by unfamiliar words: glance, dignified, height, or hard to handle structures that don't quite come together for her. She omits the detail unnecessary to the mainstream of the story and stays with the essential meaning.

Menetane does have some misconceptions. She reads "the thundering sled behind him crept closer" and later reports: "they raced and raced. The thunder came; they was still racing."

In S51 she says Freddie is "about two feet tall" and Elizabeth is "only about one and a half feet tall". She indicates by size that she knows Freddie is older than Elizabeth, but nowhere in the story is there evidence for her conclusion.

But as we've indicated in our discussion of the retellings (Chapter VII) such misconceptions are an indication of the reader's constructive process as she seeks meaning.

What stands out among these HS readers is their wide variability. This needs to be kept in mind as their group data is examined.

What They Correct

In S51, HS4 corrects 31% of the miscues that are syntactically acceptable, but only 21.6% of fully unacceptable and 15.3% of the fully acceptable. Figures are similar for S69. They correct 31% of partially acceptable, 22% of unacceptable, and 13.3% of fully syntactically acceptable miscues.

About 25% of fully acceptable miscues in both stories are unsuccessfully corrected, whereas unsuccessful corrections are only 3% and 14% of partially acceptable miscues. 16.2 and 25% of syntactically unacceptable miscues are unsuccessfully corrected.

HS4 corrects 29.8% of miscues that are partially acceptable semantically in S51 and 30.9% in S69; they correct 15.8% of fully unacceptable S51 miscues and 13.1% of such in S69.

Only 8.7% and 14.3% of fully semantically acceptable miscues are corrected. Corrections of miscues acceptable in sentence only are 9.1 and 14.3%. Of miscues acceptable except for other miscues, 25% are corrected in S51 and 21% are corrected in S69.

HS4 readers correct 46.5% of miscues with function word OR's in S51 and 24% in S69. Unsuccessful attempts are highest on verbs, 24.2% on S51 and 35.5% on S69.

They correct 46.1% of S51 miscues with no phonemic similarity as well as 36.4% of such S69 miscues. They also correct 43.5% of S51 miscues with only beginning in common between ER and OR on S51. That means that almost half of S51 miscues coded 0-4 are corrected. Unsuccessful corrections are 34.8% of miscues with beginning, middle and end in common (coded 7) on S51 and 42.9% on S69. These probably involve multiple attempts producing non-words. HS4 subjects show high phonemic means, as well as high rates of correction for miscues with no or low phonemic proximity between ER and OR.

Syntactic Factors

HS4 shows these distributions in syntactic acceptability: unacceptable, 18.2% on S51 and 18.8% on S69; partially acceptable, 17.8 and 18.2%; fully acceptable, 49.7 and 41.9%; fully acceptable except for other miscues in sentence, 13.7 and 20.7%. It's on the latter category that HS4 subjects differ most. On S51, HS720 has 30.6% and 24.5% of fully acceptable except for compounding miscues; on S69, those figures are 24 and 36%. None of the others has such high percents of compounded miscues. None is higher than 12% on S51 or 20.4% on S69.

Lost deep structures constitute only 14.2% of the group's miscues on S51 and 13.1% of those in S69. But 33.5% of S51 miscues and 37.4% of S69 miscues produce changed deep structure. Unchanged deep structures are involved in 47.7 and 46% of S51 and S69 miscues, respectively.

Intonation shifts are involved in only 7.1% of S51 miscues, but are in 14.1% of S69 miscues. HS715, Danny, has the highest percent (20%) on S69. Some examples:

0204-

0205 saw him^o Without a word^o the

0206 man drew back his arm and let

0207 his spear fly. It was a narrow.
^

0208 escape.

Non-word substitutions are very high for HS4 readers, 37.9% for S51 and 26.6% for S69. HS716, Leana, has 46.9% and 40.8% and is high on both stories. All are lower on S69 than S51, indicating that the vocabulary and other story features may be factors.

But with the almost 64% syntactic acceptability, there is strong indication of retention of syntactic function by these bilingual readers. In contrast, omissions are only 2.6% and 2% on the two stories and insertions, 1.5% and 1%. Menetane, HS713, is high in omissions with only 4.3% and 6%. These subjects do not avoid attempting difficult words and phrases.

Their miscues involve disproportionate numbers when the expected responses are verbs, 24.1% in S51 and 29.1% in S69, but relatively low involvement of function words, 19.8% and 17.5%.

Table 6-7

IDENTICAL FUNCTION SUBSTITUTION:

HAWAIIAN SAMOAN FOURTH GRADE GROUP

Grammatical Function Story No.	Noun	Verb	Noun Marker	Verb Marker	Function Words
S51*	77.5	83.3	88.0	100***	65.6
S69**	80.2	80.6	81.3	75	66.7

*Freddie Miller, Scientist

**The Royal Race

***small n of 4

As Table 6-7 shows, HS4 has relatively high percents of miscues with matching grammatical functions.

Semantic Acceptability Distribution

HS4 has 48.2% on S51 and 50% on S69 fully unacceptable miscues. Leana, HS716, is high with 57.1% and 52%. Group figures for partial acceptability are 22.4% and 21.3%. Only 11.2% on S51 and 7.1% on S69 are fully acceptable with no compounding miscues. Another 10.2% and 12.6% are fully acceptable except for other miscues which render the sentence unacceptable. Miscues acceptable in sentence only are 5.6% and 7.1% and those acceptable except for compounding miscues are an additional 2% in both stories. Leana has no fully acceptable miscues in S69 and only 8.2% in S51. HS720 has only 4% fully acceptable in both stories. There is a lot of meaning being lost, though we must remember that second language speakers may be getting some sense from sentences which are coded syntactically and semantically unacceptable as shown in the excerpt from Menetane. High percents of non-words contribute to the gap between syntactic and semantic acceptability.

All HS4 subjects show more peripheral field miscues on S51, 11 to 18.7% with a mean of 14.6%, than on S69, 7.7 to 4.2% with a mean of 6.8%. This may represent a text difference. S69 is displayed on the page in a double column format, while S51 has the full width of the page display.

Hawaiian Samoan Second Grade

As we've said earlier, the HS2 subjects were unable as a group to read S44, the standard story. We used, instead, S26, Two New Hats, and S28, The Big Surprise, referred to as 26 when combined). Two were used because of their brevity and all statistical analysis treated them as a single unit. Hereafter, we'll use S26 for both. They read as their culturally relevant story, S68, Henry's Choice.

HS2 subjects, though they exhibit considerable dialect and second language influence in retelling (see HS702 excerpt) have much lower miscue dialect percents in their reading, 7.9% on S26, and 10.5% on S68, than either HS4 or HS6. Only HS710 exceeds 10% on both stories. This may reflect a lack of confidence on part of the group which inhibits movement to their natural English.

Secondary dialect is involved in 3.8 and 3.3% of non-dialect miscues. 8.2 and 13.1% are coded dialect doubtful.

All subjects read S26 more proficiently than S68. Mean coded MPHWS is 8.0 for S26 and 12.5 for S68. Non-dialect is 7.4 and 11.3. Only HS703 has comparable non-dialect MPHWS on both stories.

Correction percents favor S26, 26.7 compared to 12.2. All subjects show sharp differences, particularly HS702 and HS710 with 3 to 1 ratios. Mean semantic acceptability is less different on the two stories, 38.1 to 34.3 with only HS701 showing substantially higher on S26. Comprehending reflecting the correction differences favors S26, 56.5% to 43.8% for S68.

Only mean syntactic acceptability is higher for S68, 54.1% compared to 51.6% for S26. Residual MPHWS is 3.2 for S26 and double that for S68. RMPHWS range is narrower for S26, 2.4 to 3.6, than for S68, 4.4 to 7.8.

These differences may reflect real differences in text difficulty but it could also be that the controlled vocabulary of the S26 stories is more like the texts HS2 subjects have experienced than S68, which is from a reading program which does not employ controlled vocabulary.

Graphic and phonemic means are relatively low, 5.1 and 4.2 for S26 and 5.5 and 5.0 for S68. The higher means are again on what appears to be the more difficult task.

Table 6-8

HAWAIIAN SAMOAN SECOND GRADE GROUP STATISTICS

Subject Number Story Number	701		702		703		710		GROUP MEANS	
	26*	68**	26	68	26	68	26	68	26	68
Total Miscues	35	68	43	72	48	49	43	48	42.3	59.3
Coded Miscues	35	53	43	54	48	49	43	48	42.3	51.0
MPHW	6.5	13.9	8.0	14.6	9.1	9.7	8.4	11.85	8.0	12.5
Dialect Miscues	3	3	2	5	2	6	6	7	3.3	5.3
MPHW	0.6	0.8	0.4	1.4	0.4	1.2	1.2	1.73	.6	1.3
Percent	8.6	5.7	4.7	9.3	4.2	12.2	14.0	14.6	7.9	10.5
Non-Dialect Miscues	32	50	41	49	46	43	37	41	39	45.8
MPHW	6.0	13.1	7.6	13.2	8.7	8.6	7.2	10.12	7.4	11.3
Residual MPHW	2.4	7.4	3.5	7.8	3.6	4.4	3.3	5.93	3.2	6.4
% corrected	12.5	8.0	34.1	10.2	30.4	20.9	29.7	9.8	26.7	12.2
% sem. acceptable	53.1	40.0	29.3	30.6	34.8	32.6	35.1	34.1	38.1	34.3
% sem. unacc. but corr.	6.3	4.0	24.4	10.2	23.9	16.3	18.9	7.3	18.4	9.5
Comprehending percent	59.4	44.0	53.7	40.8	58.7	48.8	54.1	41.5	56.5	43.8
% syn. acceptable	62.5	66.0	51.2	57.1	41.3	37.2	51.4	56.1	51.6	54.1
Proximity means										
graphic	4.7	5.1	5.7	5.9	5.6	5.5	4.4	5.58	5.1	5.5
phonemic	3.9	5.4	4.9	4.8	4.2	4.7	3.9	5.00	4.2	5.0
syntactic	7.5	8.1	8.0	8.1	6.4	7.4	6.3	7.09	7.0	7.6
semantic	6.1	6.9	7.3	4.5	6.4	5.7	5.8	6.57	6.0	5.9

* S26 & 28 Two New Hats and The Big Surprise

**S68. Henry's Choice

HS703, Teala, starting S28 has trouble with Ted in the first line. She has this interchange with the researcher:

Teala: What is this word?

R: What do you think it might be?

Teala: Where you got the books?

R: We brought them with us.

Teala: At mainland?

R: Right.

Teala: Hard!

This seven year old has some interesting cultural-geographical concepts. However, her first response to Ted is today, then at the next occurrence, she goes to Ed and corrects to Ted.

HS702, Betsy, illustrates communication problems over the metaphoric use of "feel" during the retelling:

R: How do you think Henry felt when he found the "droung" (dragon)?

S: He neva fin' one droung, he go find one lizard and he tol' his father, "The lizard look like one droung".

R: OK, OK. How do you think he felt when he found the lizard?

S: Cause he felt someting on his leg.

R: I didn't hear you, Betsy.

S: He felt someting on his leg.

R: He felt something on his leg --

S: And den he saw a lizard.

R: How do you think that made him feel?

S: Da's made him tickle.

R: Oh, it tickles.

S: Cause it tickle.

R: OK. How did he feel when he went to the store with his father?

S: He went wit da horse.

R: Hm?

S: He went wit' da horse.

R: The what?

This second grader is clearly operating on a more limited and non-metaphoric use of felt, mystifying the researcher with her responses.

It's worthwhile to look at the sharp contrast in correction on the two stories for some insights into the different processing.

HS2 has 12% unsuccessful corrections on S26 and 17.5% on S68. That means that mean total attempted corrections are 39.2% on S26 and 29.5% on S68. All except HS710 have higher rates of unsuccessful correction on S68 than S26.

Here's an excerpt from each story read by Betsy, HS702:

S26:

- 0201 "I see a ^{*mongey} monkey," said Ted.
- 0202 ^{(a) its luk} "It looks ^{*goots} like a circus monkey." ^{*goot} ^{*mongey}
- 0203 ^{(d) sayed} "Yes," said the man.
- 0204 "And what do you see ^{(c) dis on-} on this one?"
- 0205 ^{*goots} "A circus bear!" said Ted.
- 0206 ^{a. log-hed} The man laughed. ^{i. log-ed}
- 0207 ^{(d) sayed} Then he said, "Now do you know
- 0208 what my balloons are for?"
- 0209 ^{(c) (R)} ^{the goost} "Are they circus balloons?"
- 0210 ^{axed (d)} asked Ted.

S68:

0301 ^{RS} One day Henry's father said, "I think

0302 it's time for you to learn how to

0303 take ^{car}are ^{bet}care of a pet."

0304 So he ^{took}took Henry to a ^{bet}pet store.

0305 "Pick out the ^{bet of went}pet you want,"

0306 Henry's father ^{sayed}said.

0401 Henry ^{2. did not}didn't think he ^{went}wanted

0402 to take ^{car}care of a ^{bet}pet.

0403 But he went around the store and

0404 ^{look}looked at all the animals.

What seems to show here is the effect of compounding miscues in the two stories. The higher miscue rate on S68 may, at this level of proficiency, inhibit her correction and success of correction.

The HS2 group's correction varies in the following ways:

Correction and Syntactic Acceptability

In S26, 43% of partially acceptable miscues are corrected. Corrections of unacceptable miscues are 25%. On fully acceptable miscues it's 18.3%. 23.6% of those acceptable except for other miscues are corrected.

About 18% of unacceptable miscues and those acceptable except for compounding miscues involve unsuccessful attempts.

In S68, 20% of partially acceptable miscues are corrected. Only 14% of unacceptable miscues and 6.6% of acceptable miscues are corrected. Correction of acceptable miscues in unacceptable sentences is 11.4%.

Unsuccessful corrections are highest on fully acceptable miscues, 21% and unacceptable but compounded miscues, 20%. Only 12.5% of partially acceptable and 14% of unacceptable miscues involve unsuccessful corrections.

Correction and Semantic Acceptability

In S26, 47.3% of partially acceptable miscues, 24% of fully acceptable miscues, 28.6% of miscues fully acceptable except for compounding miscues, and 19.4% of unacceptable miscues, are corrected,

Unsuccessful corrections exceed the mean for all miscues of 12% only on fully unacceptable miscues, 21%, and miscues acceptable except for others, 14.3%. All other categories show 6.5% or less.

In S68, with only 12% corrected over all, only corrections of partially acceptable miscues, 20.9%, appreciably exceeds that rate. 13.3% of miscues acceptable except for compounding miscues are corrected. For all other categories correction is less than 10%.

Unsuccessful corrections are highest for those miscues acceptable in sentence only, 41.7% and in sentence except for other miscues, 36.4%. 20.8% of unacceptable miscues involve unsuccessful corrections. But only 10% of partially acceptable miscues, 4% of fully acceptable ones, and 13.3% of those acceptable fully except for other miscues are unsuccessfully corrected.

The pattern that emerges is that these HS2 subjects are sensitive to syntactic and semantic acceptability in their corrections of miscues and that both success and quantity of correction are affected by text difference.

They tend to correct disproportionate numbers of verb miscues on both stories, 41.2% on S26 and 24.2% on S68. High percents of nouns, 45.8% and function words, 44.4% are corrected on S26, but only proportionate quantities on S68. Disproportionate quantities of noun modifiers, 21.1%, on S26 involve unsuccessful correction as do disproportionate quantities of nouns, 22.9% on S68.

HS2 readers are also sensitive to phonemic mismatch between ER and OR. In S26, 44.4% of miscues with no proximity are corrected as are 57.1% of those with only end sounds in common between ER and OR (coded 3). But 40.7% of miscues with only single phonemic difference are also corrected. There is no important tendency relating unsuccessful correction and phonemic proximity in S26.

Successful correction on S68 follows a similar trend: 46.2% of miscues with no proximity are corrected, as are 21.4% of those with only common end sounds.

High rates of unsuccessful correction in S68 show for miscues with only key sounds in common (25%), common ends (28.6%), and common beginnings (35.3%).

HS2 readers are correcting, or trying to correct, low phonemic proximity miscues on both stories, but only correcting high proximity miscues on S26. These patterns are interesting, considering that phonemic mean is higher on S68 than S26.

Patterns of distribution of semantic and syntactic acceptability are very similar on the two stories (see Table 6-9). There are slight syntactic shifts with higher rates of miscues syntactically acceptable except for other miscues on S68 (19.1 to 10.8%) and somewhat lower rates of fully acceptable miscues (33.3, 38%) and fully unacceptable (23.5, 27.8%) in S68 compared to S26.

Semantic acceptability differences are also minor. Only in miscues acceptable in sentence made unacceptable by other miscues (6.0% on S68 and 1.9% on S26) is there notable difference. What is notable is a gap between syntactic and semantic acceptability.

HS2 has sharply higher fully syntactic than fully semantic acceptability on the two stories and conversely sharply higher semantic unacceptability compared to syntactic.

HS2 loses deep structure in only 21.3% of S26 miscues and in 18.6% of S68 miscues, but changed deep structure results from 51.3 and 45.4% of the miscues in the two stories.

Intonation is sharply different on the two stories with means of 15.3% on S26 and 4.9% on S68. All subjects have higher intonation involvement on S26 and Teala, HS703, has 21.7%.

Many of her intonation miscues involve direct quotes. She substitutes say for saw as in this example:

0105 After a time Mrs. Duck ^{say}saw

0106 a big old apple tree.

She has four miscues of this type in S26. Teala also has high percents of word omissions, 17% on S26 and 36.2% on S68. Group means on omissions are 11.7% for both stories, but the other subjects have a lower rate of omissions on S68.

Table 6-9

DISTRIBUTION OF SYNTACTIC AND SEMANTIC ACCEPTABILITY:

HAWAIIAN SAMOAN SECOND GRADE GROUP

	Fully Unacceptable		Partial Acceptability		Acceptable only in the Sentence		Fully Acceptable in Total Passage	
	Syntactic	Semantic	Syntactic	Semantic	Syntactic	Semantic	Syntactic	Semantic
S26*	27.8	39.2	22.2	24.	.6	10.1	38.	15.8
S68**	23.5	39.3	21.8	26.3	2.2	6.6	33.3	13.7

	Acceptable in Sentence Except for Other Miscues		Acceptable in Total Passage Except for Other Miscues	
	Syntactic	Semantic	Syntactic	Semantic
S26*	.6	1.9	10.8	8.9
S68**	---	6.0	19.1	8.2

Teala produces no non-words on either story. She clearly prefers to avoid risks than produce non-words when she's unsure. Her peers produce 2.9 to 12.5% non-words on S26 and 9.1 to 18.0% on S68.

Teala is also the only HS2 reader who produces insertions, 12.8% on S26 and 4.3% on S68.

S28 0106 "Oh look at all ^{of those} _A the balloons.

S26 0301 ^{saw a white kitten} _A White Kitten

Another indication of the influence of text difference is that HS2 readers have no miscues where the expected responses are contractions in S26, but they have 8.9% in S68. That's because the text in S26 (and S28) contains no contractions. But they produce some contractions as OR's in S26:

HS710 0201 ^{Something's} ~~Something~~ came out

HS703 0404 ^{He's} He is in the circus

HS702 0202 ^{It's look} It looks

HS702 0407 ^{It's} Is this

HS702 0309 ^{It's} It is in my hat box

HS702 0410 ^{it's} I know it is there

HS701 0206 ^{didn't not} She did not

These miscues show that contractions are not unexpected to these readers. They produce them even when they're not there.

The miscues they produce on contractions in S68 show several things: some possible do/did negative problems; some dialect shifts; some equating of full and contracted forms; some difficulties with less usual contractions such as I'll and I've. In other words, they show strengths and weaknesses.

Marie (HS710) produces the most contraction miscues on S68:

- 0401 Henry didn't^{thank} think
- 0501 ^{he's} his father 1006 Do you think you'll^{ll} find
a.do not
- 0606 I don't know 1401 ^{some things moving} something moved
- 0607 I'll^{ll} think^{thank}
- 0703 ^(C) It's^s a dragon
- 0710 Is filled
I'll find one.
a.do not
- 0806 I don't want
i.do

She does produce nine contractions in S68 without miscues, including: didn't (2), that's (4), I'm (2), I've (1). So her "problem" is not consistent.

Teala omits didn't three times and omits the suffix in I'll twice.

Betsy also has trouble with didn't, omitting the contractional suffix twice and going to did not the third time.

I'll is a problem for her, too. She omits the suffix once and substitutes we'll at a second occurrence. I've loses its suffix, too.

HS701 goes to full form:

- 0606 I don't know yet
do not
- 0706 Pet stores don't have
do not
- 1005 I am
I'm going

Other HS701 miscues involve dialect and other shifts:

- 0709 This
That's all right

- 1502 This ~~blaz~~-erd
 "That's a lizard,
- 1506 this
 And that's how Henry got
- 0904 That's a
 This is dragon food
- 0710 Only
 I'll find one,
- 1009 I go
 I'm going to catch one
- 1504 it's
 "I know it is," he said.

The pattern of these miscues involving contractions is a complex one that seems to involve some language factors that may be related to the second language status of these young readers.

All HS2 readers produce proportionately more miscues on function words in S26, compared to S68 with means of 27 and 17%. They also all produce higher rates of noun miscues on S68 with means of 26.4% on S26 and 36.2% on S68. Controlled vocabulary in S26 may account for this.

Teala shows considerably higher peripheral field miscue rates on both stories than any other HS2 subject, 33.3% on S26 and 20.7% on S68. This is in sharp contrast to the other HS2 subjects' range of 3.8 to 17.1% on S26 and 11.1 and 13.9% on S68.

Teala, HS703, S28

- 0401 "I see a clown," ^(C) said Ted.
- 0402 "What a long nose ^(C) he has!" said
- 0403 He looks ^{any} like a good clown."
- 0404 He's
 "He is in the circus," said the man.
- 0405 ^(C) clown
 "He is called Happy Joe."
- 0406 ~~Thed~~ asked ^(d)
 Ted asked,

- 0407 ^c "Is this balloon ^{is} your surprise?"
- 0408 "No," said the man.
- 0409 "The surprise is in ^{the} my box.
- 0410 ^c ^{y-} Do not look!"

This excerpt shows some of her peripheral involvement: said, clown, is, the are all substituted near where they occur in the peripheral field.

Table 6-10

IDENTICAL FUNCTION SUBSTITUTION:
HAWAIIAN SAMOAN SECOND GRADE GROUP

Grammatical Function	Noun	Verb	Noun Marker	Verb Marker	Function Words
Story No.					
S26*	50.	71.	72.7	***	67.9
S68**	69.2	70.	61.9	***	31.0

- * S26 Two New Hats & The Big Surprise
 ** S68 Henry's Choice
 *** Insufficient Data

HS2 shows relatively low percents of matching functions (Table 6-10). In S26 this could relate to relatively weak text syntax, but S68 does not have the primerese and showed no better. In fact, similar function word substitutions are much lower on S68, down to 31%. These results seem to relate to the relatively low rate of syntactic acceptability, not much over 50% on both stories. The examples and data we've cited above do show some control of syntax and response to lack of syntactic acceptability. But they also show some lack of full control which may reflect the second language background of the HS2 subjects.

Table 6-11

HAWAIIAN SAMOAN SIXTH GRADE GROUP STATISTICS

Subject Number Story Number	722		723		724		729		GROUP MEANS	
	53*	70**	53	70	53	70	53	70	53	70
Total Miscues	178	232	194	290	189	253	333	470	223.5	311.3
Coded Miscues	63	73	62	61	57	69	56	56	59.5	64.8
MPHW	8.0	7.8	8.3	11.4	9.0	9.6	16.6	18.9	10.5	11.9
Dialect Miscues	13	23	12	11	7	19	6	6	9.5	14.8
MPHW	1.7	2.5	1.6	2.1	1.1	2.7	1.8	2.0	1.5	2.3
Percent	20.6	31.5	19.4	18.0	12.3	27.5	10.7	10.7	15.8	21.9
Non-Dialect Miscues	50	50	50	50	50	50	50	50	50.0	50.0
MPHW	6.4	5.3	6.7	9.3	7.9	7.0	14.8	16.8	8.9	9.6
Residual MPHW	2.9	2.2	2.7	2.4	3.3	3.1	9.2	10.1	4.5	4.5
% corrected	22.0	32.0	8.0	14.0	22.0	26.0	20.0	12.0	18.0	21.0
% sem. acceptable	36.0	38.0	56.0	66.0	46.0	40.0	26.0	34.0	41.0	44.5
% sem. unacc. but corr.	18.0	20.0	4.0	8.0	12.0	16.0	12.0	6.0	11.5	12.5
Comprehending percent	54.0	58.0	60.0	74.0	58.0	56.0	38.0	40.0	52.5	57.0
% syn. acceptable	52.0	66.0	80.0	76.0	64.0	70.0	58.0	80.0	63.5	73.0
Proximity means										
graphic	4.6	6.0	5.5	5.2	5.3	6.3	5.7	6.0	5.3	5.9
phonemic	4.4	5.2	6.0	5.0	5.0	5.9	4.7	4.5	5.0	5.1
syntactic	7.2	7.7	7.1	6.9	7.3	7.5	8.5	7.7	7.5	7.5
semantic	7.2	6.4	6.6	7.1	6.9	6.6	6.3	5.2	6.8	6.3

* S53 My Brother Is A Genius**S70 Ghost of the Lagoon

Hawaiian Samoan Sixth Grade

As one of them might say, our HS6 group "Wen' make plen'y miscue". Mean gross production is 223.5 for S53, My Brother Is A Genius, and 311.3 for the longer S70, Ghost of the Lagoon.

Coded MPHw is 10.5 for S53 and 11.9 for S70, though total MPHw is closer, 11.0 and 11.9.

Dialect and second language influence percent is comparable to HS4 with 15.8% on S53 and 21.9% on S70. To this should be added 3.5 and 6.5% secondary dialect and 16 and 18% doubtful dialect. That adds up to strong dialect and second language influences.

Non-dialect MPHw is 8.9 for S53 and 9.6 for S70.

Correction means are 18 and 21% with only HS729 showing higher correction on S53 (20%) than S70. HS723 has relatively low rates of correction, 8% and 14%. The others are in moderate ranges. Semantic acceptability mean is also higher on S70 for the group, 44.5%, compared to 41% on S53, with only HS724 showing higher rate on S53 than S70, 46 and 40%.

Three subjects show quite consistent comprehending scores for the two stories. HS723 has a higher comprehending score, 74% on HS70, than on S53, but his score on the latter, 60%, is still high for the group. Group means are 52.5 and 57%.

Syntactic acceptability ranges from 52 to 80% for S53 and from 66 to 80% on S53 with means of 63.5 and 73%. Three subjects are higher on S70. Only HS723 is slightly higher on S53, 80 compared to 76%.

Residual MPHw means are 4.5 on both stories, but that reflects high means for HS729, 9.2 for S53 and 10.1 for S70. Range for the others is 2.7 to 3.3 on S53 and 2.2 to 3.1 on S70, relatively low.

Phonemic proximity means are similar on both stories, but graphic on S70 is 5.9 compared to 5.3 on S53. The group shows considerable variation on both in both stories.

Billy, HS722, has high dialect levels on S70, 31.5% with 12% secondary involvement and 18% dialect doubtful. His dialect includes many -ed omissions on verbs: tipped, pointed, disappeared, asked, scolded, stopped, cleared, poked, whirled, explained, dropped, brushed, squared, raised, rolled, closed, stretched, agreed, pleased, dashed, barked, leaped, crashed, armed, crushed, among others.

Nouns with s deletions: presents, oranges, hands, words, nests, ferns, blades, ones, barks, fingers, islands, slits, sharks, canoes, stars.

Possessive s deletions: Grandfather's, man's, Mako's, master's, shark's, Tupa's, boy's. All other types are found to minor degrees. There are some s insertions on singulars: eyes/eye z; sands/sand; sharks/shark. These may represent excessive concern by the reader for final s.

In no type of dialect effect is this reader totally consistent. He does produce -ed, s, 's in some cases. Possession comes closest to consistency. In only one case is the 's retained.

Retelling score group means are 39 on S53 and 53 on the more culturally relevant S70. HS6 is higher on that story than HP6, which has 41 as means on both stories.

Josh, HS723, has a high comprehending score of 74% on S70 and high retelling of 72. His residual MPHWS is 2.4 and semantic acceptability, 66%. He has second lowest correction on the story, only 14%.

Josh, HS723, S70

- 0801 ^{A palms}
The palm net took longer to make than Mako
- 0802 had realized ^u But ^e net
By the time it was finished and filled
- 0803 with oranges and that the was gloom
the jungle was dark and gloomy. Night
- 0804 come quickly and without warning in the islands of
- 0805 the tropics
- 0806 Mako carried the fruit down to the shore and loaded
- 0807 it into the canoe. When the
Then he whistled to Afa The
- 0808 dog came bounding out of the bush wagging his
- 0809 tail.
- 0810 "Hurry!" Mako scolded. "We won't be home
- 0811 before the dark comes."

- 0812 The little dog leaped into the bow (as in show) of the canoe,
- 0813 and Mako came aboard. Night seemed to rise up
- 0814 from the surface of the water and ^ashallow ^{UC}him ^Cswallow them. On
- 0815 the distant ^Cshore of Bora Bora, ^{the} cook fires were
- 0816 being ^{bright}lighted. The first star twinkled just over the
- 0817 dark mountains. Mako dug his paddle into the water,
- 0818 and ^Cthe canoe leaped ahead.

An unobservant teacher, insensitive to the influence of this reader's idiolect, might consider this poor reading, but he loses little meaning and shows frequent concern for meaning.

Josh shows some familiarity with the story's terminology. He defines some terms:

R: What's a lagoon?

S: It's a- It's a opening, like a lake -- so the sea can come inside. It's like a cove.

R: Pandanus was a word used -- what is that?

S: That's, that's a Hawaiian tree. The fruit looks like a banana. That's the kind they use for, for weave, you know, pandanus leaves.

Billy has 18% unsuccessful correction on S53; the others have only 10-12%. On S70, unsuccessful corrections range from 2-10% for the group except HS729, who has 24%, double her successful correction. On this story, except for HS723, total attempted correction varies from 36 to 40%; on S53, again excepting HS723, it varies from 32 to 40%. The difference for three of four readers is mostly in how successful their corrections are in each story.

Correction and Syntactic Acceptability

In S53, while 32.4% of unacceptable miscues are corrected, only 23.4% of partially acceptable and 13.6 of fully acceptable miscues are corrected. No category has disproportionate percents of unsuccessful correction.

S70 shows a more usual pattern: 35.1% of partially acceptable miscues, 23.5% of unacceptable miscues, and 17.9% of fully acceptable miscues are corrected. Unsuccessful corrections comprise another 23.5% of unacceptable miscues.

Correction and Semantic Acceptability

In S53, 33.3% of miscues acceptable in the sentence only, 22% of partially acceptable miscues, 17.9% of unacceptable miscues, and 13.2% of fully acceptable miscues are corrected.

Unsuccessful corrections are also 25% of miscues acceptable in the sentence only.

In S70, 24.4% of partially acceptable miscues, 20.7% of unacceptable ones, and 16.7% of acceptable miscues are corrected. 23.8% of fully acceptable miscues in sentences with other compounding miscues are corrected.

Unsuccessful corrections are high only on unacceptable miscues, 22.4%.

These patterns are like those in other groups but less pronounced.

HS6 shows very clear correction preferences for miscues with no phonemic proximity. Miscues with no phonemic relationship between ER and OR are corrected 33% of the time in S53 and 57.1% of the time in S70. Corrections of miscues with single phoneme difference between ER and OR are 23.4% in S53 and 17.2% in S70.

Range of miscues with no phonemic proximity varies from 9.5 to 28.3% in S53 and from 10.2 to 20.9% in S70. Melaga, HS724, shows 11 such miscues of 39 word level substitutions in the coded part of S53. Here are examples:

0103 Part of your ^aeducation

0202 [Ⓢ] _Ⓢ ^{A_n} I yelled

0205 I guess [Ⓢ] _Ⓢ ^I a fellow has to

0207 ^A My baby brother

0210 ^I It won't disturb ^{you} me.

0221 I went [Ⓢ] _Ⓢ ^{to} on reading

- 0228 a prize ^{for} to the student
- 0310 (as) soon as classes ^a let out ^{of} for lunch
- 0406 The "As little ^C brothers go
- 0412 I "Hmm", he said
- 0413 I He walked around ^C _{was passing} _{back} _{pacing}
- 0506 Mr. Barnaby stopped
- 0507 ^C you Wouldn't want to
- 0515 ^C the An excellent idea!
- 0525 the He placed a hand
- 0601 ^C glared _{on} _{at} me

What shows in Melaga's miscues is a pattern of function word and pronoun substitutions. They appear to result from anticipation, for instance, of: I instead of he or it; or a or the as noun markers or in initial positions in sentences. Corrections seem to be the result of unacceptability in context rather than recognition of phonemic mismatches. Note also how many examples show graphic relationships: I/it; to/on; for/to; a/as; of/for; back/pacing; you/wouldn't; the/he. Melaga has 17.9% of miscues with no graphic similarity in S53.

Syntactic and Semantic Acceptability

HS6 shows sharp gaps between syntactic and semantic acceptability in both stories. (See Table 6-12)

The pattern shows that many more HS6 miscues are fully or partially unacceptable semantically than syntactically and many more are fully acceptable syntactically than semantically. Furthermore, semantic acceptability patterns are similar on the two stories but favor S70 in higher full acceptability (53.0 and 43.8%) and lower rate of unacceptability: 8.5 and 16.9%.

Table 6-12

DISTRIBUTION OF SYNTACTIC AND SEMANTIC ACCEPTABILITY:

HAWAIIAN SAMOAN SIXTH GRADE GROUP

	Fully Unacceptable		Partial Acceptability		Acceptable only in the Sentence		Fully Acceptable in Total Passage	
	Syntactic	Semantic	Syntactic	Semantic	Syntactic	Semantic	Syntactic	Semantic
S53*	16.9	33.3	19.4	25.4	1.5	6.0	43.8	18.9
S70**	8.5	29.0	18.5	26.5	2.0	9.0	53.0	18.0

	Acceptable in Sentence Except for Other Miscues		Acceptable in Total Passage Except for Other Miscues	
	Syntactic	Semantic	Syntactic	Semantic
S53*	---	4.0	18.4	12.4
S70**	.5	7.0	17.5	10.5

*S53 My Brother Is A Genius

**S70 Ghost of the Lagoon

Group means on transformation vary little between the two stories. HS6 shows 10% loss of deep structure on S53 and 5% on S70. That's reflected in 50.7% changed deep structure in S53 and 56.5% in S70. Just over 35% of miscues in both stories retain the deep structure of the ER.

HS6 shows few intonation miscues, 4% and 5% on the two stories. HS722 is a bit higher -- 8% on S53 and 10% on S70.

All subjects show more word omissions on S53 than S70. The group mean is 12.6% compared to 6.3%. Insertions are higher in S70 (6.3%) than in S53 (3.3%).

Almost all S53 omissions are function words or pronouns. Only HS729 omits many uncommon words such as: crib, distinctly, education, encourage, and philosophical. The only words omitted by all HS6 subjects are a and I. Three of four omit all and the. Never is a word occurring more than once omitted at all occurrences. What accounts for the difference between stories is something other than the relative number of hard words in each.

Mean non-word percentage is similar for the group on both stories, 13.1% and 12.6%. HS729 has 21.2% on S53; HS722 has 19.2% on S70. HS723 has 7% and 1.7% on the two stories. It seems evident that these subjects use both omission and non-word production strategies moderately and variably depending on the task.

Table 6-13

IDENTICAL FUNCTION SUBSTITUTION:

HAWAIIAN SAMOAN SIXTH GRADE GROUP

Grammatical Function	Noun	Verb	Noun Marker	Verb Marker	Function Words	Indeter- minant
Story No.						
S53	69.7	80.0	75.0	*	57.5	62.5
S70	73.0	80.4	77.3	71.4	70.0	*

* Insufficient data

HS6 has comparable moderate percents of identical function substitutions in both stories.

Peripheral field involvement is comparable for HS6 on both stories, 16% on S53 and 13.4% on S70. HS723 is high with 20.4% and 17.3%. HS729 is low on both with 12.4% and 9.5%. Josh's excerpt above (HS723) shows several peripheral field substitutions and insertions: net, line 0802, and, the, was, line 0803, the, line 0815. All but net are function words. As with other groups, peripheral miscues are much more common among insertions than substitutions. Among coded miscues 50% of S53 insertions and 78.6% of S70 insertions have peripheral ER matches.

The Arabic Group

It would probably be immediately apparent to any new visitor to Southeast Dearborn, Michigan that this community, with its Middle Eastern coffee shops, Islamic Mosques, aromatic ethnic foods, and Arabic signs and posters, is populated by a people with distinctive culture, religion and language. The "South End", as it is called by its inhabitants, is the largest concentrated Arabic Muslim community in the United States. These people who have emmigrated from Middle Eastern countries such as Lebanon, Yeman, Palestine and Syria, constitute over one-half of the 5,000 inhabitants of this Detroit area community.

The South End is also home to the Ford Rouge complex, the largest industrial complex in the world. It is the center of industrial and administrative functions for the Ford Motor Company. Although at first, this massive industrial complex, which pours thick smoky wastes over the buildings and people of the South End, would seem a deterrent to the growth of a residential community, historically it was, in fact, the very incentive for the birth of the community. As the immigrants came to Detroit from the Middle East, their first concern was for employment, and as transportation was costly, families settled within walking distance of this huge employer which offered them skilled and unskilled jobs. Even today, most of the employed population works for Ford, and thus, the community may be characterized as low to middle income working class. However, unemployment is high: nine percent in the South End, as compared to 2.4% for Dearborn as a whole. Also, 21.3% of the families of the South End are listed as living below the poverty level (Aswad, 1974, p. 58). (The figures in this section are taken from the 1970 U.S. Census.)

Most of the children of the community attend Salina School, which also offers English classes in the evening for recent adult immigrants. Aswad claims that "The Salina School is an important institution of acculturation in the community and the people have pride in it" (Aswad, p. 64). With a foreign born population of 33% at the elementary school level and 18% at the junior high school level, teachers must address themselves to the needs of these immigrant children. (These percentages have grown between 1970 and the time of our study.) Through the efforts and activism of the community, Salina Elementary School was kept open, and the English language courses continued when the Board of Education threatened to close the school and its various functions between 1970 and 1971.

The Arab subjects for the study are children who lived in the South End of Dearborn and attended Salina. A search of the literature provided us with little information regarding the first language influence we might expect these bilingual Arab-English speaking children to exhibit during their oral reading and retellings. Articles such as "A Contrastive Study of English and Arabic" (Moray, 1968-69) and "Error Analysis and English Language Strategies of Arab Students" (Scott, 1974)

provided us with little practical information which would better enable us to analyze first language influences in children's English production. Rouschdy concludes in a study on Arab child bilinguals that "interference from English into Arabic is higher than from Arabic into English." Thus, bilingualism did affect her subjects' performance in Arabic (Rouschdy, 1974, p. 197). This article, however, does not elaborate upon the actual manifestation of these language "interferences". With the assistance of Francis Trix, an Arabic speaking linguist who analyzed the readings and retellings of the Arab children, we were able to outline the following relevant English phonological and syntactic features. These features do not occur in Arabic and are, therefore, subject to alteration by the Arab readers:

The following English consonant contrasts do not exist in Arabic and, therefore, may be read with the following pronunciations:

<u>Feature</u>	<u>Example</u>
p → b	pass - bass temper - tember
v → w → f	however - howewer
θ → t → s	Elizabeth - Elizabet something - somesing
ð → z	another - anozer
ch → sh	such - sush mixture - mix+tur
dʒ → zh	just - zhust refrigerator - refrizhurator
ŋ → n	wrong - wron strength - strenz

r American retroflex r does not exist in Arabic.

Trills and flaps will be substituted.

l English has two l allophones, as in leaf, as in call. Arabs tend to substitute the front l of leaf in all places.

Triple consonant clusters in English usually call for an inserted vowel by Arabic speakers.

gently → gentaly
friendly → friendaly
firmly → firmaly

There are many differences in vowel sounds.

There is no distinct e (as in get) sound in Lebanese rural colloquial

$\epsilon \rightarrow i$ (sit) cellar $\rightarrow$ cillar setting $\rightarrow$ setting
 $\epsilon \rightarrow ae$ (cat)
 $\epsilon \rightarrow a$ (but)

There is no distinct ae (as in cat) sound

$ae \rightarrow a$ (but) bat $\rightarrow$ but
 $ae \rightarrow \epsilon$
 $ae \rightarrow a$

The u (as in put) in this dialect is more rounded

put $\rightarrow$ pout

The o (as in law) does not exist in this dialect

(low) tall $\rightarrow$ tol

The a (as in father) only occurs after velarized consonants

$a \rightarrow a$	Oscar $\rightarrow$ Escar	dah	} these can occur
$a \rightarrow \epsilon$		tah	
$a \rightarrow ae$		zah	
		sah	

diphthongs

oi does not exist in this Arabic

soil $\rightarrow$ sol

Syntactic features which are changed include possessives, verb forms, noun forms, and prepositions.

Examples

possessives $\rightarrow$ loss of 's
 $\rightarrow$ loss of of

plurals $\rightarrow$ loss of marker

noun constructs $\rightarrow$ inverted

verb "to be" $\rightarrow$ omission

ER

Freddie's mother
 the name of the
 boy
 experiments
 camels
 station wagon
 bus station
 He was just like
 his father.

OR

Freddie mother
 the name the
 boy
 experiment
 camel
 wagon station
 station bus
 He just like
 his father.

Examples

	ER	OR
verb tenses → perfect goes to continuous present:	he has studied	he is studying
	he has written	he is writing
→ past tense inflection is omitted:	called	call
prepositions and particles → omissions	put your coat on	put your coat
	pick you up at 10	pick you at 10
→ additions	I met him	I met on him
→ confusions	I'm afraid of...	I'm afraid from...
	that was from Mary	that was to Mary

It should be noted that for the Arab children who are fluent in English, these features may be regarded as dialect features which originate from differences between Arabic and English.

Our AR group, more than any other group in this study, represents the pattern of the urban immigration that has been a factor in American life throughout the industrial epoch. They arrive speaking no English. They may be literate in a home language, or even a home and school language. Lebanese schools often are conducted in French, for example. Or they may be totally unschooled. They plunge into an English speaking world but the home, and to some extent the neighborhood, are still Arabic speaking islands. They learn English or they do not survive in school. They often acquire literacy in English simultaneously with their acquisition of oral English.

Because receptive language develops more rapidly than productive, they may read and comprehend things in English they can't yet discuss in English.

An Arabic Fourth Grader

Widad (AR615) is one of the many Arabic speaking children in the South End neighborhood. She came with her family from Lebanon a year earlier. At home she speaks only her native dialect of Arabic, but all her school work is now in English. Though the school has some instruction in English for speakers of other languages, just like the Italians and Romanians in this community before her, Widad has mostly picked up English from her classmates.

In a year's time she has learned to understand and communicate fairly well in English. Of course, she doesn't yet sound like a native American. Her English pronunciation is influenced by Arabic phonology. And her syntax in English reflects some overgeneralizations common to all foreign children learning English, as well as some of the Arabic influences discussed above.

She read, as did our other AR4 readers, the standard story, S51, Freddie Miller, Scientist, and a story with an Arabic setting, Mr. Moonlight and Omar, S87. (See Chapter 7 for discussion of weaknesses in this story.)

In her retelling and her reading, Widad showed the evidences of her first language, Arabic phonological influences we might predict.

In reading S87 line 1812, Selim held the plow firmly became "Selim \$hilt the \$palow \$firmaly". In her spoken English, none of these get much in the way of others understanding her.

With no p-b contrast in Arabic, Widad shows a remarkable example of her struggle to straighten out the difference in English. In S87 line 0202, was having a terrible battle, she reads making several attempts. For battle (1) bottle, corrects to (2) battle, abandons that for (3) paddle and finally stops with a non-word (4) \$pottle.

On line, 0609, and baring his big yellow teeth, she substitutes parking for baring.

Still these are the only b/p confusions she shows in both stories so this must not be considered a serious hang-up.

She doesn't hesitate to try to use English, but she can't always find the words and structures to say what she wants to say.

Here's an example from her retelling:

- S: And then ah, 'm, eh, he, I don't know what he do... He blinks ah... his, uh, it's like this...
- R: What is it used for? What did he do with that? With, what you're tracing on the table, what did he do with that thing?
- S: Hm, he, I don't know what he did. I can't say it.

Her syntax reflects few features that are directly from Arabic syntax alone. Examples of these in her retelling include:

- R: Who was Mustapha?"
- S: He was, the man who...the camel to him. (In colloquial Lebanese, the camel to him is the correct syntax.)
- R: How was he going to buy another doll?
- S: Some words I don't understand it. (Arabic requires the pronoun object here.)

Mostly, however, Widad's syntax reflects her particular stage in learning English. Children of other non-Arabic second language backgrounds would be likely to produce similar experimental structures as

she does. These structures include: a) omission of the copula or be as an auxiliary:

"I just like your father." (I am like...)

"Then the man running and the camel still running."

b) use of a present tense uninflected verb for a past tense one:

"I don't know what he did. He give a light for his sister."

"What are you doing in the kitchen he want to know."

"Why the clock is ring?"

c) Was substituted for were:

"When they was riding Moonlight, the donkey, they saw all the people running."

d) Omission of the possessive

"Selim father hitch the pulling rope to Mr. Moonlight."

"He heard his sister voice calling."

In the retelling there are times where Widad seems to be working out which form of a word to use. She corrects herself, showing clearly how her grasp of English syntax is developing: "The boys took... the boy take... the boy took home."

The percentages of dialect miscues, however, are not especially high compared to other second language groups. In S51, 10.5% of her miscues are dialect and in S87, 13.8% are dialect. But on S51, 13.7% of her miscues have secondary dialect involvement and 2% are doubtful, while on S87, there are 10% dialect doubtful.

Here is the complete text of Widad's retelling of S51:

R: Very nice, Widad. It was a pleasure listening to you read that. Thank you.

S: You welcome.

R: Would you like to tell me now what that story was about, what you remember, about it.

S: About uh Freddie.

R: Umhm.

S: Uh, first thing, uh, his sister has a doll and, and he broke it. And his, her hair is broken.

R: Umhum.

S: And hi-, and, his mother told him to, to buy another doll for her.

R: Umhm.

S: And one day his sister, stuck uh, in door. Inside of door, in the door it would not open. Ah, Freddie tri-, tried with all his things to open the door and he can't open it. And then he... I don't know what he did. He, he did that, he give a light for his sister and then he told her, "I am goin' to turn the light off, becau-, I, n', I'll go, n', you, uh, n', you catch it. And when you reach it, tell me." Then his sister, ah, reach it and she cried and told him, "Are, I, I got it." And then ah, 'm, eh he, I don't know what he do...He blinks ah...His, uh, it's like this...

R: What is it used for? What did he do with that? With what you're tracing on the table, what did he do with that thing?

S: Hm, he, I don't know what he did. I can't say it.

R: Well, go on to what happened next.

S: And then he told her, "Wait here, do-, don' be afraid. I'm goin' to call my, my, your mother. And then he call, he's gone and call his mother. And then er, and then, Mr. Meyer was comin' and Elizabet was waitin' for him at the door. And then eh she hanged him on his hand. She told him, "Come and see." And she take him to the kitchen and ah, she said, ah, eh, um, Freddie was ah exp-, doin' experiment. And then he said, "What's this all about?" asked Mr. Meyer. And then he said (whispered), ah...and his mother want umh, want to...want...Last of the story, he, uh, the boy said, "You jeust like Mis-, Uncle Scarol." She said, "No." And then he said, "My uncle Augus." She, and she said, "No." Mr. Meyer said, "Like, I, I know what like, like Uncle, Uncle...Scadow? ...Scarow." And she said, "No." And then, um, Elizabet said, "You like Uncle August." And she said, "No." And then she said, she said, she said, no (mumble) "I jeust like your father." I can't say it very well.

R: That's fine. Why were they saying that he was like all those uncles?

S: Cause the mother was, ah, ...want to...

R: The mother?

S: Yeah, want. They telling the mother, you like Uncle (mumble) but I don't know why.

R: Umhm. O.K. Can you tell me some more about what happened to Elizabeth's doll?

- S: Hum. First it broke, and his, and her hairs broke. And then his mother told him to buy another doll. Then he,
- R: Why did the hair get broke? Do you remember, how the hair got broke?
- S: Don't remember.
- R: Oh, all right then. You said his mother told him to buy another one. Why did she do that?
- S: Cause he broke the doll and Elizabet want another one.
- R: Oh, how was he going to do that, buy another one? Do you remember?
- S: Some words I don't understand it.
- R: Oh. OK. Now you said his sister was stuck in the door.
- S: Yeah.
- R: Do you remember how that happened, that she got stuck?
- S: Um um (no).
- R: What kind of a boy would you say Freddie was? What kinds of things did he like to do?
- S: He liked to fix everything. And he liked to do things like fix the clock, and do anything \$exeper Freddie.
- R: Do you remember anything about fixing the clock?
- S: Whe-, yeah.
- R: What happened then?
- S: His father ah wa-, up in morning. At breakfast he said, "Why the clock didn't ring?" And then he, is a Freddie tri-, he want to try to fix it.
- R: Ahha (yes).
- S: And then, ah, Freddie, ah, took the clock and fix it and put it. And his father wake in the morning and said, the, why the clock is ring then this, uh, and the boy told him about it.
- R: Oh, and then what happened?
- S: ...let me think.

- R: How did they feel about that?
- S: They feel fine.
- R: They feel fine? OK. Do you remember how it is that Freddie helped Elizabeth when she stuck in that door? ...You said she was stuck in the door, and he gave her a light.
- S: No, he was, he was ah, da, he was doing an, an \$exeper-, and um m, Uncle Meyer was, was come, he was going some place, and then he, he ran up-, ah upstairs, and, and he heard his sister, called "Freddie, Freddie where are you?" And then he said, "Where are you?" "I am in here, this dor-, this door is stuck."
- R: Oh, I see. And how was it that he helped her out? What did he do to help her?
- S: Ah, there's a big word. I can't understand it.
- R: Ahha (yes). OK. Do you remember where the story took place? Where did most of the story take place?
- S: What?
- R: Where did all the things happen?
- S: I don't understand.
- R: You don't understand what I'm saying. Ah, let's see...Well, let's go on to something else. Was there anything in the story that you thought was funny?
- S: Yeah. The last, ah, when, the last part of the story.
- R: Why was that funny?
- S: Ah, ...can't say it (weak voice).
- R: Well, tell me the best that you can.
- S: Because, cause it, everybody said, ah, Our Uncle. And then she laughed. And then she said, "I yo-, I like jeus you're like your father.
- R: Oh, I see, that's good. Was there anything exciting in the story?
- S: I don't know what exciting means?
- R: Oh, I see. Oh. If you had to tell somebody what this story was about, Widad, what would you tell them? What the story was about in just a couple of, in just a few words.

- S: Um. I read a story about a l-, boy... I tell him ah the story's about the la-, a boy his name is Freddie. He like to fix everything. And he's a good boy and his mother and his father like him. And, ah, and he likes to do things, super things. And he, the, the clock was, was not, it didn't ring, and, and he fixed that. And he told his father that ah, that he fixed the clock and his father and his mother was feel fine about it.
- R: Very good. You said his father and mother like him. How do you know they like him?
- S: ...cause the last park, part.
- R: Because of the last part, did you say?
- S: ...I don't know why I,
- R: Is there any way that you know that his mom, his mother and father liked him?
- S: I don't know why I said his mother and father like, like him.
- R: I see, OK. Do you suppose that the man, or the person who wrote that story was trying to teach us a lesson or tell us something with that story, that he told us?
- S: What?
- R: Was he trying to tell us, teach us a lesson when he was telling us that story about Freddie? Was he trying to teach us something?
- S: Didn't understand.
- R: You don't know what I mean by that?
- S: Ummm (no).

Widad's reading gives evidences of her developing control of English. The miscues she produces no one completely lacking competence in English could do:

a) Insertions of and between clauses in S87:

0309 Mr. Moonlight did his best.

And

0310 ^ He pulled as hard as he could.

b) Function word substitutions and insertions in S87:

0104 on ^{the} a small farm in ^{Mugaruco} Morocco,

0311 but the ^{plow} slid ^{throughout} the soil

0504 with Selim in ^{the} front and father behind

0505 dragging his feet in ^{its} the dust.

0704 Look at ^{the} poor Mustapha!"

c) Insertion of not to create a negative in S87:

0216 He is ^{not} ~~is~~ ^{meant} to carry...

d) Mrs./Mr. substitutions (6 times in S87):

0305 to ^{Mrs.} ~~Mr.~~ Moonlight.

and Mr. and Miss substitutions for Mrs. in S51:

0204 ^{Mr. Mier} Mrs. Miller said

0208 where ^{Miss} ~~Mrs.~~ Miller had grown up

0301 Later that day ^{Mr. Mier} Mrs. Miller

0411 ^{Mr. Mile} said Mrs. Miller

e) Insertion of clause marker in S51:

0304 I thought ^{that}

0305 the ~~re~~frigerator would explode

f) Full form for contractions in S51:

0502 ^{You are} You're just like Uncle Charles.

0705 ^{I am} I'm going to drop this light

0713 You're wonderful ...

0721 "Now, ^{what is} what's all this about, Elizabeth?"

In S87:

1003 ^{He is} He's the most

g) Synonym substitutions in S87:

0902 ^{hot-tempered} even bad-tempered ones

Widad's developing control and the contrast between the languages, Arabic and English, produce other types of miscues:

a) Preposition substitution in S51:

0503 ...clocks ^{of} in Switzerland.

0522 ...looked up ⁱⁿ at the small window

b) omissions in S51:

0719 ...one corner ^{of} the kitchen...

c) Pronoun substitutions in S87:

1010 [©] Will you give ^{it} him to me

In S51:

0709 Freddie told her ^{his} [©]

0815 then ^{he} [©] she said

A difference clearly shows in Widad's developing control of English between her receptive control as represented in her reading and her productive control as shown in her retelling. Her handling of verb syntax illustrates this. In her retellings she uses these non-acceptable verb forms:

Copula deletion:

You welcome.
You like Uncle August.
I just like your father.

Tense shifts:

they go to see (went)	the man run (ran)
his sister has a doll (had)	they was riding (were)
he can't open it (couldn't)	she take him (took)
he give a light (gave)	he fix it (fixed)
then his sister reach it (reached)	he want to (wanted)
he call his mother (called)	His father and mother was feel fine (felt)

Auxiliary deletion:

his sister stuck in door (was)
They telling the mother (were)
all the people running (were)
the man still running (was)
he never going to pull (was)

In reading Widad produces some -ed deletions, but there are many more -ed's not deleted. Some deletions preceed /t/.

- S51 0203 I added too many
0317 Freddie decided to fix
0723 He wanted to know
0401 Freddie worked hard
0504 Mr. Miller sighed
0522 Freddie, trying to think, looked up
S87 0304 father hitched the pulling rope
0801 just laughed at him
1501 his father asked

She produces only one irregular verb past tense substitution in her reading:

- S51 0104 ^{is} sister was heartbroken

Her only copula deletion is corrected:

- S51 0404 ^(c) he was careful

She has a few miscues involving tense or s forms:

S51 0319 the clock work^s after all

S87 0921 and ^{whispers} whispered comfort

1411 the furrows ^{was} were ^{grow} crooked

1518 this makes him ^{sways} sway from side to side

1519 and ^{rocks} rock like a ship

Only two miscues show any problem with complex verb syntax:

S87 0514 to see ^{1. happen} ^{2. happen} what was happening (corrected to: "to see what was happen")

0919 Selim ^{patting} patted the camel's neck

Widad shows similar differences between productive and receptive control of noun syntax.

Widad shows more insertions and omissions of words than any other AR4 reader, 3.9 and 7.8%, respectively, on S51, 7.8 and 9.8% on S87.

Omissions

S51 0223 None of the chemicals...

0226 Then one day Freddie made...

0313 Freddie's next experiment was in a field

0404 ^C he was careful

0707 when you can reach it

0721 Now ^{what is} what's all this about

S87 0108-
0109 a damp black nose ^(C) and a pale, white coat

0203 He held the light wooden plow

0406 ^(C) He's a fine donkey

0605 to beat the camel with it

Insertions

S51 0304- ^{that}
0305 I thought [^] the refrigerator would explode.

0316 I hope it isn't ^{it} [^] going to give us trouble!

S87 0216 He is ^{not meant} [^] meant to carry

0505 had to go to ^{the} [^] market in the village

Some of these insertions and omissions are those any English speaker could produce. Some, particularly those involving prepositions and noun markers (determiners), may reflect her lack of full control of English syntax.

Our analysis requires us to classify any incomplete syntactic structure as syntactically unacceptable and semantically unacceptable, but she provides several examples of resulting structures that probably made sense to her. (See S51-0223 and S87-0203 and 0605)

Widad produces extremely high ratios of non-word substitutions on S51, 45.1%. These drop to 17.6% on S87. Why this sharp difference occurs is not apparent.

Many of her non-word substitutions retain bound morphemes:

\$exprenting/experimenting	acident/accident
\$herbroken/heart-broken	\$lavved/lived
\$saddaly/sadly	\$findly/finally
\$lickaly/likely	\$repled/replied
\$inmistring/interesting	\$eneming/aiming
\$cloudy/cloudy	

Every non-word substitution that Widad produces shows high graphic and phonemic proximity between ER and OR. In some cases her problem seems to be too much use of phonic strategies and uncertainty about how the real words should sound. She produces these examples:

\$a-lu-wance/allowance
\$enought/\$enow/enough
\$d' larm/alarm
\$eajer/eager

uncle/\$unkown/unknown
\$comparade/compared
closed/\$clooset/closet
\$lickaly/likely

She shows a high rate of syntactically acceptable miscues, 80.4%, on S51 as compared to 60% on S87. That seems to reflect her syntactically acceptable non-words, because her semantically acceptable miscues are only 33.3 and 34% on the two tasks.

She's low for the group in correction, only 3.9% on S51 and second lowest, 18%, on S87.

But she has unsuccessful corrections of 19.6% on S51 and 22% on S87. To some extent this reflects some multiple attempts at words that result in non-word substitutions. It does not reveal a strong tendency she has to correct partials. Her strategies produce comprehending percents of 37.3 and 48% for her on S51 and S87. Her MPHWS, non-dialect MPHWS, and residual MPHWS are all high for the group.

Her graphic and phonemic proximity scores are particularly high on S51, 6.59 and 5.98 and moderate on S87, 5.22 and 5.06. These reflect the different strategies she uses, particularly in her production of non-words.

Arabic Fourth Graders

These fourth graders show considerable variation. Coded MPHWS varies from 7.31 to 14.5 with two subjects higher on S51 and two higher on S87. Mean is 10.66 on S51 and 10.04 on S87. Dialect percent varies from 5.7 to 16.4% with means of 9.7 and 11.2% on S51 and S87. Non-dialect miscues follow the pattern of coded miscues with mean MPHWS 9.66 and 8.94. Residual MPHWS means look comparable, 4.7 and 4.4, but range is from 3.04 to 7.31 on S51 and 3.03 to 6.34 on S87. Two AR4 subjects are higher on S51, one on S87 and AR619 has 3.04 and 3.03 residual MPHWS.

Correction varies from Widad's 3.9% to AR619's (Kamal) 46%. Means are 20.7% on S51 and 25.1% on S87.

AR619 (Kamal) is low on semantic acceptability with 18% acceptable. High for the group is 44%. Means are 35.4% and 31.4%.

Comprehending scores are less varied. Means are 51.8 and 50.8%, but Widad has only 37.3% on S51 and Kamal has 60% on S87.

Table 6-14

ARABIC FOURTH GRADE GROUP STATISTICS

Subject Number Story Number	613		615		618		619		GROUP MEANS	
	51*	87**	51	87	51	87	51	87	51	87
Total Miscues	98	107	147	180	172	155	98	126	128.75	142.0
Coded Miscues	58	61	57	58	53	57	57	53	56.25	57.25
MPHW	9.18	7.31	13.01	14.15	12.93	10.69	7.54	8.04	10.66	10.04
Dialect Miscues	7	10	6	8	5	5	6	3	5.5	6.5
MPHW	1.11	1.20	1.37	1.95	0.73	0.94	0.79	0.46	1.0	1.14
Percent	12.1	16.4	10.5	13.8	5.7	8.8	10.5	5.7	9.7	11.2
Non-Dialect Miscues	51	51	51	50	50	52	51	50	50.75	50.75
MPHW	8.07	6.12	11.64	12.20	12.20	9.76	6.75	7.59	9.66	8.94
Residual MPHW	3.64	3.12	7.31	6.34	4.88	5.25	3.04	3.03	4.7	4.4
% corrected	25.5	15.7	3.9	18.0	22.0	21.2	31.4	46.0	20.7	25.1
% sem. acceptable	35.3	43.1	33.3	34.0	44.0	30.8	29.4	18.0	35.4	31.4
% sem. unacc. but corr.	19.6	5.9	3.9	14.0	16.0	15.4	25.5	42.0	16.25	19.33
Comprehending percent	54.9	49.0	37.3	48.0	60.0	46.2	54.9	60.0	51.8	50.8
% syn. acceptable	60.8	74.5	80.4	60.0	72.0	61.5	54.9	42.0	67.03	59.5
Proximity means										
graphic	5.89	6.21	6.59	5.22	5.86	6.38	5.42	4.93	5.94	5.69
phonemic	6.11	5.98	5.98	5.06	5.62	6.38	4.58	3.64	5.57	5.26
syntactic	8.13	7.97	8.44	7.97	8.14	8.39	7.96	7.71	8.17	8.01
semantic	6.35	7.17	6.47	7.06	6.41	6.78	5.67	6.67	6.23	6.92

* S51 Freddie Miller, Scientist**S87 Mr. Moonlight and Omar

Syntactic acceptability means are 67 and 59.6%, with range from 42 to 80.4%.

Graphic and phonemic means are relatively high with AR618 (Makmud) having means of 6.38 on both in S87. But Kamal is an exception, falling to 3.64 on phonemic proximity in miscues produced on S87.

The pattern Kamal shows is quite unusual, particularly on S87. He has 18% semantically acceptable, including only 10% that are fully acceptable in the passage and uncomplicated by other miscues. But he corrects 46% on that story, almost all of which are semantically unacceptable. That results in the group high comprehending score of 60% on that story and the lowest residual MPHW 3.03.

Here's what Kamal's miscues look like on S87:

0201 One day Selim was helping his father

0202 ^(C)blow ^(C)of ^{a-}blow up the earth in their barley field.

0203 He held the light wooden ^{blow}plow

0204 by the handles

0205 ^godded and guided it through the soil.

0206 His father walked ahead

0207 and pulled the ^{blow}plow

0208 ^(C)the ^(C)w- with a rope ^{g-}slung over his shoulder

0209 ^(C)The This made Selim's father very ^{tried}tired

0210 ^(R)When they stopped to rest, Selim said,

0211 "Father, ^(C)wouldn't the ^{ha- blowing}plowing be easier

0212 ^(C)^(P)M- Mr. Moonlight pulled the ^{blow}plow

0213 instead of you?"

0214 His father smiled and said, "Yes, Selim.

0215 But a donkey is not meant to pull things.

0216 He is meant to carry ^{li-}loads on his back."

Selaam
0217 Selim was sure, however,

0218 that Mr. Moonlight would pull the ^{blow}plow

^C of
0219 if he asked him.

Kamal makes fewer miscues than Widad and corrects himself in many cases almost immediately. Several come at the beginning of the line and seem unrelated to prior or following text. Complicating all this is Kamal's consistent substituting of blow for plow. That relates to the b/p relationship discussed with Widad. In retelling he uses a non-word, \$jugo, for plowing.

Kamal has been in the U.S. for 2½ years. His control of English, both receptive and productive, seems more complete than Widad's and might lead a teacher to overlook his bilingual influences.

Here's an example of Kamal's retelling:

S: Uh - the - Selim and his father were going to get - they heard people calling - and then they went to see - and then there was uh - the owner of the camel h-had a - had a plastic - uh - string in his hand to hit the camel. And the camel was so angry that he - he was going to bite him on the shoulder. And Selim said - if cou- if he could keep the camel.

Few instances show any non-English grammar except the choice of said rather than asked in the last statement. Certainly there is none of the verb syntax that Widad shows. Still Kamal shows a hesitance and vocabulary limitation that probably reflects his lack of full confidence in English. That seems to be operating in his reading, too.

As questions in the retelling session of S51 probed Kamal's memory, he repeatedly responded with "I don't know".

R: Was there a lesson in the story?

S: Yeah.

- R: What was it?
- S: I don't know.
- R: Did the story make you feel good or bad?
- S: Make me feel good.
- R: Why did it make you feel good?
- S: I don't know.
- R: How did he make that homemade flashlight that you told me about?
- S: He made it with, uh, string, batteries, and a ruler - that's all.
- R: And how did he make it with all that stuff?
- S: I don't know.

With the great variability of corrections in this group, it is interesting to examine which miscues they tend to correct as a group: almost 20% (18.7 and 19.2) of all miscues are unsuccessfully corrected. For some AR4 readers, their unsuccessful corrections exceed their successful corrections.

Syntactic Acceptability

They correct, on S51, 38.5% of unacceptable, 41% of partially acceptable, and only 12% of fully acceptable miscues. For S87 they correct 26.3% of unacceptable, 50% of partially acceptable and 14.4% of fully acceptable.

Semantic Acceptability

They correct, on S51, 16.9% of unacceptable, 39% of partially acceptable, 16.7% of fully acceptable, and 10% of those fully acceptable except for compounding miscues. Unsuccessful corrections are 28.9% of unacceptable miscues and 25% of those acceptable except for other miscues.

They correct disproportionate numbers of miscues involving function words, 36.1% on S51 and 40.5% on S87.

Phonemic Proximity

Correction is highest on miscues with no or low proximity. 44% of miscues coded 0-4 are corrected on S51. Only 6% are unsuccessfully corrected. Only 14% of miscues coded 5-9 are corrected, but 24% involve unsuccessful correction.

For S87 the pattern is similar: 54% of those coded 0-4 are corrected. Only 2% are unsuccessful corrections. Again 14% of those coded 5-9 are corrected, but 30% involve unsuccessful corrections.

The pattern of correction seems to show concern for accuracy, with high correction of dissimilar sounding substitutions. But there is also a tendency to correct miscues syntactically unacceptable or partially acceptable and semantically partially acceptable.

With the already small numbers of phonemically dissimilar substitutions (only about 25% of miscues in both stories are coded 1-4), the focus on accuracy is remarkable for this second language group. The high rate of unsuccessful attempts to correct high proximity substitutions probably reflects the high rate of non-words that are close to the ER.

The ability of these AR4 readers is demonstrated by their low rate of syntactically unacceptable miscues, 12.8% on S51 and 18.7% on S87, and by the high correction rate on miscues involving function words cited above. While 43.8 and 42.4% of their miscues result in alternate deep structures only 5.4% and 10.8% involve lost deep structures. Substitutions of words with the same grammatical function of ER and OR are also high.

Table 6-15

IDENTICAL FUNCTION SUBSTITUTION:

ARABIC FOURTH GRADE GROUP

Grammatical Function	Noun	Verb	Noun Marker	Verb Marker	Function Words
Story No.					
S51*	86.9	76.5	79.4	71.4	65.8
S87**	83.3	83.3	53.6	85.7	58.5

*S51 Freddie Miller, Scientist

**S87 Mr. Moonlight and Omar

These readers, though their receptive control of English syntax is in development, are demonstrating considerable use of English syntactic cues and ability to manipulate English syntax. Their high correction rates on function word OR's and lower rates of function word for function word substitution shows syntax is certainly in use in their reading. Two categories of function words most involved in miscues on both stories are noun markers, 3.7 and 3.4% on S51 and S87 and phrase markers 5.7 and 6.9% (of all miscues).

Only 6.4% of miscues in each story involve intonation with 0-12% range.

The semantic area is where these AR4 subjects fall off. From 33.3 to 58.8% of their miscues on S51 and 35.3 to 50% on S87 are fully unacceptable semantically; mean for the group is over 40% on both stories. For S51, 23.6% have partial acceptability as do 24.6% for S87. In sentence only, 8.4 and 3.9% are acceptable. While only 11.8 and 10.8% are fully acceptable over 15% in each story would be acceptable in sentence or passage except for complicating miscues. That's a lot of lost meaning only partially recaptured through corrections mostly of partially acceptable miscues. The moderate comprehending scores reported above, about 50% for all subjects on both stories, reflect the correction patterns of higher focus on accuracy than on meaning.

Mean retelling scores are 44% on S51 and 47% on S87. AR618 (Makmud) has 73% on the latter, but no other score is above 49% and scores go down to AR613's (Rasha) 37% and 32%. These retelling scores partly reflect the productive language limitations of the subjects. They may understand more than they can confidently express.

All subjects have relatively more word level omissions on S87 than S51, but none has more than 9.8%. Only Widad, on both stories, and Kamal, on S51, have insertions. Non-words are about 20% on both stories for all subjects except Widad with her 45% on S51.

The relevant story, Mr. Moonlight and Omar (S87), provides interesting insight into the language influences on the reading of English of our AR4 subjects, as well as the extent to which these readers are in control of English.

This story (S87) makes reference to plows and the act of plowing throughout the story. The word plow appears in various grammatical forms 31 times. A phonological, syntactic and semantic analysis of the miscues produced for the various forms of plow follows:

Phonological Analysis

As reported earlier, the phoneme /p/, which does not occur in Arabic, is pronounced as a /b/ by Arabic speakers of English. Examples include blow, blowing and blows, for plow, plowing, and plows. The AR speakers are prone to substituting the allophone /l/ in leaf for all incidents of /l/ in English since there is only one possible allophone

of /l/ in Arabic. In addition, Arab speakers of English will tend to insert a vowel in consonant clusters. For example, our subjects produced \$palowing for plowing, polos for plows, and \$palow, pull and pole for plow.

English speakers have two pronunciations for the graphemic combination "ow". It may be pronounced as the "ow" in blow or as in cow. This may be the source then of miscues for both English and Arabic speakers. Our subjects produced \$plo~~e~~ and \$plo~~e~~ing for plow and plowing.

A phonological analysis of the miscues for plow reveals evidence that the pertinent Arabic English phonological features discussed above are involved in the oral reading miscues for this word. Thus, although some of the OR's may be non-words, they do follow consistent logical phonological patterns for Arabic bilinguals.

Often the phonological shifts relate to real English words. Kamal (AR619) substitutes grammatical forms of blow for plow every time it occurs in the text. Makmud (AR618) substitutes various forms of pull and plow eighteen out of thirty one times, and pole for pull seven times. Blow, pull and pole are all real English words. They also reflect graphophonemic relationships based on the Arabic phonological features outlined earlier. However, due to the limited English vocabularies of second language users, we cannot be certain that the readers are aware that they are producing real rather than non-words. The graphophonemic relationship which the readers have developed may be responsible for this move toward real word substitutions, rather than an effort to produce semantically acceptable structures.

Syntactic Analysis

Various inflected and non-inflected forms of plow appear in the story, appropriate to the grammatical function it serves in the sentence, and obligatory agreement rules.

Plow functions as noun, verb, and adjective in the story. Plowing occurs as a verb-derived noun and a verb, depending upon the particular sentence. Plows occurs once as a plural noun. Plowed also appears only once as a verb. In the case of plow and plowing, the inflection or absence of inflection cannot be used as the only cue for determining its grammatical function in the sentence, because they both, in fact, function as several different grammatical forms. Therefore, the reader must have a grasp of the syntactic structure in which the word occurs, in order to produce a miscue with the appropriate grammatical function. Eighty-eight percent of the OR's for the various forms of plow by the AR4 group are of the same grammatical function as that of the ER's. Seventy-two percent of the sentences produced by AR4 in which plow occurs are fully syntactically acceptable. Eighteen percent of the sentences would have been syntactically acceptable, had the other miscues in the sentence, not involving a form of plow, been acceptable. In other words, only 10% of the sentences in which the word plow occurred were rendered syntactically unacceptable, because of a subject's miscue for that word.

The following sentences illustrate the ability of the AR4 subjects to produce syntactically acceptable sentences. Note the appropriately inflected substitutions for plow.

AR618 S87 1708 Selim ran back with them

1709 to the ^{pulling} plowing field.

AR619 S87 1310 "Amar blowing
"Omar is plowing."

AR615 S87 0311 But the ^{plow} slid ^{throughout} through the soil slowly.

AR613 S87. 0301 So he ran to the house

0302 and brought back the donkey

0303 to help with the ^{pulling} plowing.

This indicates that AR4 readers have a receptive control over English syntax, and are able to use their linguistic knowledge in predicting appropriate grammatical structures. Even when non-words are produced, inflectional endings are tacked on to them, indicating the reader's concern for preserving the grammatical acceptability of the sentence.

The subjects are producing non-random, linguistically logical miscues, which demonstrate their ability to form syntactically and graphophonically appropriate structures. These miscues further demonstrate the readers' strengths in processing English text, and suggest that first language influences phonologically are, in fact, very systematic and not necessarily disruptive to the English syntactic structures of the text.

Meaning

While AR4 subjects produce miscues for each occurrence of some form of plow in the text, we may not assume that they are unable, therefore, to understand the concepts underlying these words. But the retellings can show that.

The following excerpts from the retellings clearly indicate that, while the label they use for the concept may not match the term used in the story, the necessary concepts come to be understood:

AR

613: So the camel went with the boy and they tried to...do the grass
...the fa- the fa...

R: They tried to what?

S: Do the thing.

R: To do the thing?

S: The plant...they want to plant something. So they...they...the
father work hard on it but he can't...they be tired...but the
horse and the camel did it.

AR

619: he...he use the \$jugo and Selim use to pull...him. I don't
remember.

R: Can you explain to me how someone could \$jugo?

S: They \$jugo in straight line. They...use thing they push it in a
real straight line.

R: A straight line in what?

S: In ah...well...

R: In what?

S: In the underground.

R: And what's it for?

S: It's for planting.

AR

618: They were working at to plant something and his father always
pulled the polo and it was very hard. Salom tried to get the
donkey and tried to pull it, but the donkey couldn't...and then
he tried the camel to pull it and he couldn't and they both push
the solo and it worked and it went deep under the earth and it
went just straight.

R: What's a solo?

S: Well, it's a thing with two handles and something pointing down.
You got to pull it, but they don't push it with a camel; they push
it with a cow. When the cow moves the one who's pushing it gotta
go push on it so it goes deeper in the underground.

AR

615: Story's about the...a donkey and a camel...and...uh...a boy has a donkey and his father was \$plowning...\$plowning...\$plowning and ...uh...the boy told his father to - can I try...is a...can I... can Moonlight could...try to \$ploee the ...\$ploee and his father said yes and he tried and but oh the boy said to the donkey pull ...uh...Moonlight...then ah...he can't pull ca- he pulled...uh... he pull.

S: ...then, uh, uh, Moonlight...uh...uh...go first...uh thing uh put it on...uh...camels head and the - and...the...boy said... pull Omar then...uh...the...the...the...the camel followed the the donkey's trail and they...the plo...pulled and the the boy said pull Omar pull Moonlight...and say get it straight...and the...the his father was happy and he's he's never gonna work so hard again ...that's it.

Note that the AR4 subjects continue to use real word and non-word substitutions for plow in their retelling, despite the fact that they are able to demonstrate an understanding of the concepts. AR619 moves to a non-word \$jugo in the retelling instead of blow, which is used while reading. AR615 repeats the non-word \$plowning three times in the retelling, in an effort to produce a correct form. These readers seem to be aware that they are not producing the correct term, but for efficiency's sake, substitute real or non-words each time plow occurs in their reading or retelling. Although their English vocabularies are limited, their conceptual abilities are not. These readers may, in fact, know they don't know the label for the concept, but this doesn't prevent them from gaining meaning. Their efforts to produce a correct form in their reading (AR613, 615 change forms for plow five or six times during their reading) and in their retellings provide evidence for this.

There are several language issues which may be addressed on the basis of this plow data, which go beyond the information we've attained about the reading ability of the AR4 subjects.

In comparing their oral reading with their retelling, it becomes quite clear that their lack of control over English production cannot be assumed to be an indicator of their receptive control of the language. Evidence for that comes from their miscues and retelling. While a linguistic analysis of their retellings indicate a lack of productive control over the syntactic and semantic structures of English, both a content analysis of the retellings and a qualitative analysis of their oral miscues (discussed previously) demonstrate that Arab bilinguals and perhaps bilinguals in general have a receptive ability in reading, which far exceeds their overt productive language ability. Thus, our data provides evidence that one need not acquire total productive control over a language in order to be able to read and comprehend printed material in that same language.

Throughout the literature on second language learning and bilingualism, any evidence of first language features in the oral production and oral reading of the second language has been described as "interference". Perhaps "interference", which connotes a negative effect of the first language on the second, may not be an appropriate term to describe this phenomenon.

If one is to consider the surface language production of a second language learner as the main indicator of success in language learning, then any evidence of first language features in second language production would be considered "interference". However, if communication is the goal of language learning, then evidence of first language features in second language production would only be considered an "interference" when meaning is affected. It is clear that first language "influences" exist in the English reading and speaking of our AR4 subjects, but the quality of their miscues and retellings do not suggest that their first language "interfered" with their understanding of the necessary concepts. Thus, if one is to describe the phenomenon of first language influences on second language performance as "interference" evidence of some deleterious effect on that performance should be provided. Whether or not "interference" has been involved in second language performance is an empirical issue, subject to analysis and evaluation. It should not be used as a general cover term for describing the interaction between the first and second languages of bilinguals.

The third issue, to which we must address ourselves, cannot be limited to a discussion of the reading ability of Arabic-speaking bilinguals, but has implications for assessing the reading ability of all readers. Although our Arab subjects miscued on the word plow or one of its variant forms each time it occurred in the text, the retellings of these readers suggest that the plowing concepts are nonetheless understood. The concepts may have already been understood by the AR4 subjects before reading the story as the retelling of Makmud indicates (see AR618 retelling portions previously discussed). This subject probably had experiences in which plowing was a necessary concept to learn. Perhaps he lived on a farm and actually had first-hand experiences similar to those of the main characters of the story. However, for some of the subjects, their concept of plowing may have actually been developed through reading the story. It is quite possible that a reader who has little prior understanding of a concept can learn it through the printed material itself. Thus, learning can take place during the reading process. This suggests that evaluation of oral reading accuracy is not a good measure of actual meaningful reading and processing. Without a qualitative psycholinguistic analysis of the oral reading of bilingual and monolingual readers the reading and linguistic abilities of readers cannot be accurately determined. Surface behavior such as mispronunciations of words cannot be the single criteria for assessing the competence of the reader.

Table 6-16

ARABIC SECOND GRADE GROUP STATISTICS

Subject Number Story Number	602		604		608		609		GROUP MEANS	
	44*	68**	44	68	44	68	44	68	44	68
Total Miscues	117	43	115	45	146	81	82	37	115	51.5
Coded Miscues	58	43	63	45	54	55	54	37	57.3	45.0
MPHW	18.53	8.16	20.66	8.54	22.31	14.71	11.79	7.02	18.32	9.61
Dialect Miscues	8	4	13	6	4	4	4	2	7.3	4
MPHW	2.56	0.76	4.26	1.14	1.65	1.07	0.87	0.38	2.34	.84
Percent	13.8	9.3	20.6	13.3	7.4	7.3	7.4	5.4	12.3	8.8
Non-Dialect Miscues	50	39	50	39	50	51	50	35	50	41
MPHW	15.97	7.40	16.39	7.40	20.66	13.64	10.92	6.64	15.99	8.77
Residual MPHW	7.67	3.80	8.52	3.04	9.09	4.28	5.24	2.66	7.63	3.44
% corrected	20.0	20.5	12.0	35.9	18.0	19.6	18.0	31.4	17	26.9
% sem. acceptable	38.0	33.3	44.0	35.9	40.0	52.9	38.0	37.1	40	39.8
% sem. unacc. but corr.	14.0	15.4	4.0	23.1	16.0	15.7	14.0	22.9	12	19.3
Comprehending percent	52.0	48.7	48.0	59.0	56.0	68.6	52.0	60.0	52.0	59.1
% syn. acceptable	72.0	56.4	56.0	56.4	50.0	56.9	66.0	60.0	61	57.4
Proximity means										
graphic	5.79	5.74	5.46	5.73	4.28	4.56	6.27	5.85	5.45	5.47
phonemic	4.94	5.45	4.80	5.43	3.30	4.56	5.85	5.12	4.72	5.14
syntactic	8.00	8.36	7.82	8.59	7.16	7.62	8.06	8.64	7.75	8.30
semantic	5.95	6.08	6.32	6.43	6.10	6.67	6.32	6.57	6.17	6.44

* S44 Kitten Jones

**S68 Henry's Choice

Arabic Second Graders

These children read S44, Kitten Jones, the standard second grade story, and S68, Henry's Choice.

The latter was considerably easier for them by most indications. Mean coded MPHW on S44 is 18.32, but only 9.61 on S68. Dialect percents are 12.3 and 8.8%. Non-dialect MPHW is 15.99 and 8.77. Correction is 17% for S44 and 26.9% for S68.

With 40 and 39.8% semantically acceptable, virtually the same residual MPHW becomes 7.63 and 3.44. Comprehending score means are 52 and 59.1%. Only in syntactic acceptability does mean performance on S44, 61%, exceed that on S68, 57.4%.

Individual patterns follow the group except that AR602 and AR608 have comparable rates of correction on both stories, about 20%, while AR604 corrects much more on S68, 35.9%, compared to 12% and so does AR609, 31.4 compared to 18%.

AR602 has 52% comprehending on S44 and 48.7% on S68, but that's the only subject who doesn't have higher comprehending on S68. Retelling score means are 39 for S44 and 40 for S68, but range is 19-57 on S44 and 37-46 on S68.

Group graphic and phonemic proximity means are lower than AR4 readers, but still in moderately high ranges: S44, graphic, 5.45; phonemic, 4.72; S68, 5.47 and 5.14. AR608 is an exception to group trends with all means on both stories below 4.6. Her phonemic mean on S44 is 3.30, very low indeed.

Much of what we find in the AR4 group is also true of AR2. But these are younger children. They're reading less complex material and they are in some senses less mature readers.

There are some problems in communication in the retelling as these excerpts illustrate:

AR602:

R: What was his father like?

S: Kitten

R: Huh?

S: He like a kitten. You said what he like. I said a kitten.

Other second language subjects also show this confusion over like's multiple meanings and grammatical relations.

AR604 has this exchange showing a problem in expression:

R: How about Mrs. Jones; do you remember anything about her?

S: N-, no, no (pause) no - We don't have that word in Arabic.

But second graders in an English-speaking environment the same length of time as older children are learning English just as rapidly as evidenced in this retelling sequence:

AR609 (Awafet):

S: What was that thing - um that thing that you send - they sent pictures - it starts with a "c" - um. And they took pictures. And their mother took pictures of her costume. And his father worked pictures and they took - um - um. They took pictures of boys and girls playing in the backyard of schools and they took pictures of their friend. That kitten, she was playing with the camera and then she took a picture. And then the girl came. And I don't know what the rest of it is.

R: What did the girl do?

S: She take the camera. She give it to her father. His father went to - night room. What's that room - in the night? And then she send the pictures to that thing with the rob- robin. And the bird. And then the cat won. She got a ball. And then she liked the ball best of all.

R: What was that thing that began with "c"?

S: It's - like a show. You send pictures and you win - like that. This word, that word here - this one (points to word in book).

R: What is that? Do you know?

S: Contrast.

This last interchange reveals language, both syntax and semantics, in development. Though English is a second language for these subjects they build their control of it just as they do with their first language. The child knows that the picture in the story was a bird, though it's called a crow in the book - so he talks about a robin. He can't remember what a darkroom is called, so it becomes a "night room". And he knows what a contest is and even what the word looked like - though he doesn't exactly remember how it sounds. Reading the story has advanced the child's language generally, not just his reading.

AR2 readers show these correction patterns: As a whole, in S44, 17% are corrected and 17.5% involve unsuccessful attempts. In S68, 26.2% are corrected and unsuccessful attempts comprise another 20%.

Correction and Syntactic Acceptability

In reading S44, they correct 33.3% of their partially acceptable miscues, but only 15.7% of fully acceptable and 16.7% of fully unacceptable ones. They make unsuccessful attempts to correct 28.6% of their fully unacceptable miscues.

In reading S68, 37% of partially acceptable and 37.5% of fully unacceptable miscues are corrected, but only 20.8% of syntactically acceptable miscues are corrected. Heaviest unsuccessful corrections are on miscues fully acceptable except for other miscues in the sentence, 37.5%. Unsuccessful attempts on fully and partially acceptable miscues drop to 12.5% and 16.7%.

AR2 readers also show strong correction of miscues involving function words. They correct 46.2% on S44 and 45.5% on S68. This is interesting because only modest amounts of miscues, 18.4% and 14.2%, involve function words.

Correction and Semantic Acceptability

Patterns of correction are similar to syntactic patterns. On S44, 29% of partially acceptable miscues are corrected, but only 14.7% of both fully acceptable and fully unacceptable are corrected. But there are unsuccessful attempts on 25.3% of fully unacceptable miscues. On S68, 38% of partially acceptable and 25.5% of fully acceptable miscues are corrected, whereas 22.2% of miscues acceptable in sentence only and 21.2% of fully acceptable miscues are corrected. Unsuccessful corrections are heaviest on miscues acceptable in the sentence or passage except for other miscues, 31%.

Correction and Phonemic Proximity

Highest correction rates are on miscues with no proximity, 41.7% on S44 and 60% on S68. On S68, 44% of miscues at the low end of the proximity scale, 0-4, are corrected. While 31.6% of miscues with single phoneme differences are corrected, only 8.5% of those coded 5-7 are corrected. Unsuccessful attempts on these latter are relatively high, 37.1%.

Though the pattern is not quite as sharp with AR4 readers, we can still see these readers striving for accuracy, but also responding to syntactic and semantic unacceptability. They tend to correct, or try to correct, to acceptable forms, succeeding more with partially acceptable than fully unacceptable miscues. They particularly correct function word miscues and those with no phonemic similarity.

Of miscues syntactically acceptable, proportional amounts of AR2 miscues are fully acceptable in both stories, 44.5% and 43.9%. But in S44, 15% are acceptable in the passage except for other miscues. For S68, that figure is 9.8%. Eighteen percent of S44 miscues are partially acceptable syntactically in S44, as are 28% in S68. Fully unacceptable miscues are 21% and 14.6%.

AR2 does a considerable amount of transforming with varied individual patterns. In S44, the mean percent of miscues with no transformation is 38%, but that varies from 16 to 50%. Miscues with different deep structure show a 39% mean and a narrow range, 36-42%. But lost deep structure varies from 8-36%.

AR608 shows the high loss, 36% and low percent of untransformed structures, 16%. In S68, she shows much transformation, but only 9.8% loss of deep structure. She has 56.9% changed structures. Yet she has the high retelling scores for the group on both stories. This underscores the way in which second language readers are able to work around their syntactic limitations to get to meaning.

Intonation is involved in 9% of AR2's miscues on S44 and 6% of those in S68. One subject AR602, has 14% and 10.3%. Her miscues are largely involved in the dialogue in S44:

0103 "We have four ^{young} ones," Mr. and Mrs.

0104 Jones always ^{answered} "Penny" Sue, Jack

0105 and Kitten Jones "

0217 ^{How} "Oh Mother " cried, ^{Just} Jack " May we take

There is a lot of dialogue in this story, and AR602 does not consistently miscue on it. Her miscues may reflect inexperience with dialogue in print more than difficulty with the syntax of dialogue.

All our subjects show the deletion of bound morphemes -ed and s noted in AR4 readers. But AR604 shows some tendency to insert bound morphemes, 10% and 7.7% in the two stories:

S44 0102 ^{peoples} people asked

rusheded/rushed; trieded/tried; walkeded/walked

0206 ^{Vins Candy's} Vine's Candy shop

0311 ^{Kittens} pictures of Kitten Jones

0409 ^{four paws} white fur paw

0602

the Kittens
this picture of kitten

The added -ed morphemes are found across many groups and seem to be a kind of super-correct form. The reader worries about omissions so he or she adds extra ones.

But the other examples appear to reflect some groping with the English inflectional system.

Cross-tabulation of the grammatical functions of ER and OR shows some interesting patterns for AR2 readers:

Table 6-17

IDENTICAL FUNCTION SUBSTITUTION:

ARABIC SECOND GRADE GROUP

Grammatical Function	Noun	Verb	Noun Marker	Verb Marker	Function Words	Indeter- minant
Story No.						
S44*	35.2	69.2	72.2	***	48	100****
S68**	82.3	61.0	76.9	***	41.7	***

*S44 Kitten Jones

**S68 Henry's Choice

*** insufficient instances

****100% of miscues with ER's indeterminate are replaced by indeterminants, but only 21.4% of indeterminate OR's replaced indeterminate ER's.

While noun, verb, and noun modifier substitutions are in predictable ranges, function word matches are low. This relates to low frequency of such miscues and high levels of correction for them.

Semantically acceptable AR2 miscues on S44 break down in this manner: 7.5% acceptable in sentence only; 17% fully acceptable; 4.5% acceptable in sentence except for other miscues; 11% acceptable fully except for compounding miscues. S86 shows 11% in sentence only; 20.1% in passage; 3.7% in sentence and 6.1% in passage except for compounding miscues. S44 has higher percent unacceptable than S68, 37.5 compared to 28.7% and lower partially acceptable, 22.5 compared to 30.4%.

Word level omissions are higher on S44 than S68, 12.9 compared to 4.7%. Anwar, AR604, particularly, has 26.5% on the former, but only 2.6% on the latter.

Omitted words for him are: answered*, changed, camera*, clear, corner, excited, exclaimed*, marionette*, suddenly*, thumped, upstairs, vine, vines*. Starred items are words which occurred more than once in the text where some substitution, either non-word or real word, occurred at least once. This illustrates that this second grader is using omitting as a strategy for avoiding risk-taking. He can, and does at some instances, produce some attempt at the word, but he often chooses not to do so when he thinks he will be wrong.

It would be easy to say that the reason for his use of this strategy on S44 rather than S68 is simply due to more difficult vocabulary in the former. But Anwar shows these miscue examples in S68 with the word dragon:

- | | | | |
|------|-------------------------------------|------|-------------------------------|
| | 3. drangden
2. dres
1. dragon | | 2. drangdon
1. dreg |
| 0703 | It's a dragon. | 0704 | A dragon! |
| 0705 | A dragon (correct) | 0706 | Pet stores don't have dragons |
| | * dogKins | | * dawgons |
| 0708 | baby dragons to give away | | |

Correct examples again occur in lines 0803, 0805, 0806, 0904, 0905, 0906, 1005, 1006, 1302, 1403, 1404, 1406, 1501, 1505, 1507. He abandons his correct attempt on line 0703 and tries a series of sounding out sorties, gets it right again on line 0705, then shifts to non-word attempts in two more instances, and then settles finally on dragon. He seems to have mistrusted himself, but not enough to omit.

In retelling, Anwar interchanges talking about dragons and lizards. (In fact, the dragon was a horned lizard.)

Here are some other examples of his sounding out strategy:

- | | ER | OR | | | |
|------|-----------|----------------------------|--------------|--------------|--|
| 0705 | might | 1. may-ther
4. maytcoth | 2. mayt ther | 3. mayteuth | |
| 0803 | wrote | 1. word | 2. wote | 3. wrote | |
| 1002 | grandpa's | 1. gardor | 2. \$gar | 3. grandab's | |
| 1102 | grandpa | 1. grant
4. grandpa | 2. grant | 3. granda | |
| 1502 | grandpa | 1. grandpath | 2. grandpa | | |

1503 ^{ER} laughed 1. ^{OR} low 2. laughed 3. laggard

In this last example, Anwar abandons his correct attempt showing his lack of confidence in his own semantic sense; he retreats to sounding. This is a particular vulnerability of second language readers who aren't very confident of their ability in English. They can easily be intimidated.

AR2 shows 12.4% non-word substitution miscues in reading each story. AR602 is high with 25% on S68.

Peripheral field involved miscues are moderate: 13.8% on S44, 14.5% on S68.

Arabic Sixth graders

Our AR6 group includes three children born in Jordan and one from Lebanon. They had been in the U.S. from one to seven years. They read S53, My Brother Is A Genius, the standard story, and Fareedah's Carpet, S88.

Their miscue frequency is relatively high on both stories: coded MPHW, 12.2 on S53 and 17.2 on S88; non-dialect MPHW 11.4 and 16.8.

Dialect percents are low, 7.5% mean on S53, 2.4% on S88. Secondary dialect includes another 2.5% on S53 and 4.5% on S88. Miscues which are possible dialect are 8.5 and 8%.

Correction levels are very low for the group and for individuals: a range of 4 to 20% with a mean of 13% on S53; and 4 to 12.2% with mean of 7.6% on S88.

Semantic acceptability is 35.5% on S53 and 33.7% on S88. Combined with the low rate of correction, the resultant comprehending scores, 43 and 39.7%, again are relatively low. Variation among group members is narrow and scores for individuals are similar on the two stories. AR622 is low with 30 and 32% while AR623 is high with 48% on both stories.

Retelling looks very much better with surprising means of 51% for S53 and 58% on S88. AR622 is low with 24 and 42. AR628 has quite high scores, 76 and 72. Her score on S53 is as high as any reader in the entire study.

Syntactic means are 71% on S53 and 73.9% on S88, comparatively high. All group members are between 74 and 82% on both stories, except AR622 with 50% on S53 and 66% on S88.

Graphic and phonemic proximity means are high, 6.4 and 5.9 on S53, 6.1 and 5.5 on S88. Ranges are narrow.

Table 6-18

ARABIC SIXTH GRADE GROUP STATISTICS

Subject Number Story Number	622		623		627		628		GROUP MEANS	
	53*	88**	53	88	53	88	53	88	53	88
Total Miscues	312	486	175	281	192	293	184	273	215.8	333.3
Coded Miscues	51	51	56	52	51	50	59	51	54.3	51.0
MPHW	18.7	26.2	11.2	14.2	9.5	13.6	9.2	15.0	12.2	17.2
Dialect Miscues	1	1	6	2	1	0	9	2	4.3	1.3
MPHW	0.4	0.5	1.2	0.5	0.2	0.0	1.4	0.6	0.8	0.5
Percent	2.0	2.0	10.7	3.8	2.0	0.0	15.3	3.9	7.5	2.4
Non-Dialect Miscues	50	50	50	50	50	50	50	49	50.0	49.8
MPHW	18.3	25.6	10.0	13.6	9.4	13.6	7.8	14.4	11.4	16.8
Residual MPHW	12.8	17.4	5.2	7.1	4.9	8.2	4.2	8.8	6.8	10.4
% corrected	16.0	4.0	12.0	10.0	4.0	4.0	20.0	12.2	13.0	7.6
% sem. acceptable	18.0	30.0	40.0	40.0	46.0	36.0	38.0	28.6	35.5	33.7
% sem. unacc. but corr.	12.0	2.0	8.0	8.0	2.0	4.0	8.0	10.2	7.5	6.1
Comprehending percent	30.0	32.0	48.0	48.0	48.0	40.0	46.0	38.8	43.0	39.7
% syn. acceptable	50.0	66.0	74.0	78.0	78.0	74.0	82.0	77.6	71.0	73.9
Proximity means										
graphic	6.6	5.9	6.5	6.1	6.4	5.9	6.2	6.4	6.4	6.1
phonemic	5.6	5.5	6.5	5.6	5.2	5.2	6.4	5.5	5.9	5.5
syntactic	8.4	8.4	7.6	8.1	7.5	8.5	7.7	8.4	7.8	8.4
semantic	6.0	6.3	7.0	6.7	6.2	5.8	7.1	7.1	6.3	6.5

* S53 My Brother Is A Genius

**S88 Fareedah's Carpet

Residual MPHW means are 6.8 and 10.4, with a range of 4.2 to 12.8 on S53 and 7.1 to 17.4 on S88. Again AR622 has both high figures.

AR622, Mohammed, whose comprehending, semantic and syntactic acceptability are so low and whose residual MPHW are so high, shows quite unusual miscue patterns.

S53:

0101 "If it bothers you to think of it ^{brothers} ^{RS}as baby ^{stinging} sitting," ^{RS}my father

0102 said, "then don't think of it as baby ^{staying} sitting. Think of it

0103 as homework. Part of your ^{2.edition} education. You just happen

0104 to do your studying in the room where your baby brother

0105 ^Cis sleeping, that's all." He helped my mother with her

0106 coat, and then ^Cthey were ^{going} gone.

0201 So education it was! I ^Copened the ^Cdictionary and picked

0202 out a word that ^Cstood ^Csounded good. "Philosophical!" ^CI yelled.

0203 Might as well study word ^Cmean meanings first. "Philosophical:"

0204 ^{UC}sowing clams ^{UC}showing calmness and ^{UC}courage in the face of ill ^{UC}fortune.

0205 I mean I really yelled it. I guess a fellow has to work off

0206 ^{RS}steam ^{RS}once in a while.

0207 My baby brother ^{RS}Andrew made a few silly baby ^{seconds} sounds

0208 and began to cry. ^{4.cereay}

0209 "Philosophical!" ^CI shouted. "Go ahead and ^Ctr-cry! Cry

There are a number of corrected partials and unsuccessful corrections. He shows 28% unsuccessful corrections on this story. Like the group, his graphic proximity is high: 6.6 on S53 and 5.9 on S88. His substitutions show this strong phonic ability: \$rothers/bothers; stinging, staying, sitting; edition/education; going/gone; sowing/showing.

He leaves many meaningless and syntactically unacceptable sentences uncorrected. Again it would be easy to ascribe this to "hard words", but he reads most words in the story accurately and a lot of sentences are acceptable. His retelling is superficially accurate, but he misses most of the essence of both stories. He doesn't deal with the unusualness of the baby in S53 or the lesson learned by Fareedah in S88.

There is little direct evidence that this pattern is related to Mohammed's second language background.

Eva, AR628, with 15.3% dialect and far more evidence that her control of English is still developing, has this pattern in the same sequence:

- 0101 ^{its bother} "If it bothers ^{do y-} you to think ^{the a} of it as [^] baby sitting," my father
- 0102 said, ^{"Don't} then, don't think of it as ^a baby sitting. Think of it
- 0103 as homework. Part of your education. You just happen
- 0104 to do your studying in the room where your baby brother
- 0105 is sleeping, that's all." ^{UC} He helped ^{bro-} my mother with her
- 0106 coat, and then they were gone.

- 0201 So education it was! I opened the dictionary and picked
- 0202 out a word that sounded ^{2.phil} good. ^{1.phil-} "Philosophical!" I yelled.
- 0203 Might ^{RS} as well study ^{words} word meanings first. ^{*philosophical} "Philosophical:
- 0204 showing ^{*clams} calmness ^{ac} and ^{*courage} courage in the face of ill ^{fort} fortune."

0205 I mean I really yelled it. I guess ^{as} a fellow has to work off

0206 steam once in a while.

0207 My baby brother Andrew ^{med} made a few silly baby sounds

0208 and began to cry.

0209 "Philosophical!" I shouted. "Go ahead ^{then} and ^{cry!} Cry

She makes some of the same miscues as Mohammed, but corrects more strategically.

Her retelling reveals the ability of a reader to get meaning while still developing productive control of the language. She's one of the few subjects to retell in first person. Here's her opening:

S: My father told me to stay, you know like uh babysitting, sitting with my baby brother. And I told my father that I have to read. But he said just don't think of it as a babysitter; just think as you have to work at home. And then he put -- put the coat on my mother's shoulders and they went.

I went to my brother's room and I shouted out of the word. I shouted. My brother didn't like it."

Here's Mohammed's retelling of the same sequence:

S: His mother and father went -- went to a place - and - and he started reading. His little brother started crying. Then at school he made a project, outside project.

Perhaps the main contrast in these two is their involvement in meaning. Mohammed seems equally preoccupied with getting words right, but Eva is getting to the meaning more.

The AR6 group corrects little as we have said, and has more unsuccessful corrections than successful on both stories. They make unsuccessful attempts of 19% on S53, and 17.1% on S88. All subjects except Eva (AR628) show this pattern of fewer successful than unsuccessful corrections.

Here are their correction patterns:

Syntactic Acceptability

On S53, partially acceptable miscues are most likely to be corrected (30%), but unsuccessful corrections are heaviest on unacceptable miscues (28.6%). On S88, with only 7.8% total correction, 16.7% of partially acceptable miscues and 22.7% of unacceptable miscues are corrected.

Unsuccessful corrections are 26.7% of partially successful miscues.

Semantic Acceptability

On S53, corrections are 23.1% of partially acceptable miscues and 19.2% of fully acceptable ones. Thirty percent of semantically unacceptable miscues have unsuccessful corrections. On S88, 15.4% of partially acceptable miscues are corrected, as are 14.3 of fully acceptable miscues. Unsuccessful corrections are 25% of miscues semantically acceptable in sentence, 21.4% of passage acceptability and 28.6% of those acceptable in sentences with compounding miscues.

More than proportional numbers of function word miscues are corrected in both stories: 18.8% in S53 and 25.9% in S88.

Phonemic Proximity

While only small proportions of miscues have low or no phonemic proximity between ER and OR, high percents of miscues with no similarity are corrected: 38.5% on S53, 30% on S88. Unsuccessful corrections are more scattered.

Only 8% of the miscues for three subjects are fully syntactically unacceptable on S53. But Mohammed (AR622) has 32% of such miscues. He's also high on S88 with 20%, while the others vary from 2-12%. Group mean for syntactic partial acceptability on both stories is 15%. Of miscues acceptable syntactically, the group has 54% on S53 and 40% on S88 fully acceptable. For Mohammed, these figures are 18% and 20%. He has 32% and 46% fully acceptable except for complicating miscues. The group means are 16.5% and 33%.

The group has lower rates of miscues that produce transformation on S88 than S53; 40.5% of S53 miscues involve no transformation, while 58.3% produce no transformation on S88. These figures are similar for all four subjects. More miscues in S53 involve different deep structure, 46.5% than do so on S88, 32.2%. Miscues with lost deep structure are 10.5% and 5.5%. Mohammed is high in both stories with 22% and 12%.

Few AR6 miscues involve intonation: 6.5% on S53, 3% on S88.

Table 6-19

IDENTICAL FUNCTION SUBSTITUTION:

ARABIC SIXTH GRADE GROUP

Grammatical Function	Noun	Verb	Noun Marker	Verb Marker	Function Words	Indeter- minant
Story No.						
S53*	80.0	82.1	81.5	***	70.6	70
S88**	85.5	91.7	95.7	75.0	71.8	***

*S53 My Brother Is A Genius

**S88 Fareedah's Carpet

*** Insufficient numbers for meaningful figures

Substitutions with matching grammatical function are high for AR6, particularly on S88. This adds to the impression from the other data that these readers are able to deal quite adequately with English syntax.

Meaning is another matter entirely. Around half of all miscues, 45% on S53 and 51.8% on S88 are semantically unacceptable. Partially acceptable miscues comprise 19.5% and 14.6%, respectively. Of acceptable miscues, only 13% in S53 and 7% in S88 are fully acceptable; 15% and 19.1% would be so except for other miscues in the sentences. Another 7.5% in each story are acceptable in the sentence only, but almost half of those are complicated by other unacceptable miscues.

Word level omissions are not high, 7.8% on S53 and 3.8% on S88. All subjects show more on the former, except Mohammed, who has about 8% on both. All subjects except Eva also produce more non-words on S88. Means are 18.5% for S53 and 27.6% on S88. Eva produces 23.1% on the former and a high 41.2% on the latter. She has quite high graphic and phonemic means, though phonemic is lower on S88 than S53. She stays as close graphically in her non-words, but moves a little farther away in sound. There are very few insertions on S88 and only Eva has many on S53, 9.6%. But she's the reader with a very good retelling.

Peripheral field influence is minor for the group in most cases involving less than 10% of miscues. AR623 is highest on both stories, 17.5 and 11.7%.

These readers seem to be better able to handle graphophonic and syntactic relationships in their reading than meaning. Yet they have relatively good retellings. Lots of meaning is coming through the somewhat messy miscue patterns.

The Navajo Group

In northwestern Arizona, where the land is sculptured by nature into great gorges and canyons, vast mesas and multicolored buttes, lies the Navajo Nation. The life style of the Navajo people is in harmony with and respectful of the natural environment. Visitors must beware of the cattle, sheep, horses and dogs that are free to roam across roads, or anywhere else on the reservation where fences and unnatural barriers are rare. They are, after all, the natural inhabitants, while the visitor is the intruder. Navajo structures are often built of the natural materials of the land, and so leave the landscape largely undisturbed and untarnished. These "hogans" are often still the main family housing. For those families who have built more modern structures in which to live, the traditional octagonal hogan still stands alongside their home, and is used as a place of ceremony. Many Navajo families live without modern conveniences such as running water, electricity, and hardwood floors that have become facts of life for others.

By the time Navajo children have reached school age, they have a great deal of practical knowledge about the Navajo way of life. They probably know about various aspects of sheep and cattle raising, and about Navajo religious ceremonies and customs. Navajo children are often made responsible for various chores, such as sheep herding, and are thus treated as respected and functional members of the community. The Navajo culture has great respect for individual freedom and small children may have already had many opportunities to make decisions controlling their own lives. However, Navajo culture is also quite family oriented, and thus, early in life children become aware of the complex rules for interacting with various family and clan members.

The majority of children entering school have spoken only Navajo all their lives. Some who have older brothers or sisters who have already attended school may have learned a little English before entering school. Many Navajo children attend BIA boarding schools, such as the one in Chinle, where our research was conducted. Navajo culture is not print oriented. With the exception of occasional signs in English along the road, labels on products sold at the trading post on occasional rides into Chinle or other small towns on the reservation, most pre-school Navajo children have little contact with print. All the print children do encounter is in English. Very few signs, labels, or book materials have been printed in Navajo. Therefore, literacy in Navajo is far from common.

Entering school, especially a boarding school, is an extremely frightening emotional experience for many Navajo children. They must not only adjust to a totally alien culture, but in many cases, they are separated from their family and homes for the first time, returning home only for holidays and the summer. Navajo children may never have seen square, tile-floored buildings before, or have been confronted with so many strangers, with whom they may not even be able to communicate.

Often the subject matter being taught, or the themes of books and stories may be totally alien to the Navajo culture and life experiences. The values of the school and staff may also be at odds with those of the Navajo children. (Teacher training programs have introduced Navajo teachers to some extent in reservation schools which may have some affect.) Researchers commissioned by the BIA from the Center for Applied Linguistics, report that "during their visits, the study group found limited interest in Indian culture and language among the staffs of the schools studied" (Ohannessian, 1967, p. 12) among them the Chinle boarding school. While the staff seem dedicated to their pupils, many of the teachers know little about the Navajo language or culture, or language and linguistics in general. The researchers in the above-mentioned project also report on the teachers' conception of their Navajo students. "Patterns of behavior such as passivity, shyness, apparent lack of interest, distaste for public competition and reticence to excel in the classroom may be attributed by teachers and other educators to lack of motivation" (Ibid, p. 12, 13). However, Navajo children are taught to respect adults and to respect the rights of others, including their teachers, and so may express their anger and resentment through refusing to interact and remaining silent. Another reason behind what teachers attribute to an apparent lack of motivation may be the difference in learning styles between school culture and Navajo culture. Navajo children learn by pre-learning, or by an extended period of observation before trying a particular activity themselves. For instance, Navajo children may watch their mothers weaving rugs, until they feel confident that they can produce a fine quality rug on their first attempt. Teachers may confuse this type of behavior for a lack of motivation in active learning.

Due to isolation from their own culture, lower than average wages and long hours, there is a great amount of teacher turnover in the boarding schools. This, of course, would add to the adjustment problems of the Navajo children.

Much of the literature on Navajo education reports that the children score lower than average on standardized reading and math tests. Some reports such as the one conducted by the Center for Applied Linguistics, assume that "Interference from the students native language is the most prevalent and obvious problem" (Ibid, p. 11). While in many schools only English is spoken for this reason, there have been attempts to adopt bilingual-bicultural programs. Reading material in Navajo has, therefore, been developed, as well as bilingual English/Navajo materials.

Other studies have investigated the use of various reading programs to improve reading ability among Navajo children. This has most likely resulted from reports such as one by Melville and Haas (1967) that have concluded that "...Reading ability is the factor that exerts the most influence over the academic achievement of Navajo students" (p. 11).

When our researchers visited the Chinle Boarding School in Arizona, they experienced a great deal of difficulty building rapport with the Navajo students during the research sessions. The children offered little information without considerable prompting during the retellings. They often unnerved experienced researchers by responding to questions with long periods of silence, utilizing the strategy they have developed during their difficult school experiences. It is interesting to note, however, that when these same researchers visited the boys' and girls' dormitories for an informal bedtime story the children's attitude and behavior was totally different. Children were laughing and playing, climbing over one another in order to hear the stories, see the pictures and climb into the laps of their guests. Such a contrast in behavior and attitude should lead us to question the stereotyped image of the Navajo student.

We had no difficulty getting Navajo children to read for us, but we can not be confident of the retellings because of the reticence of our subjects to provide free recalls.

Navajo and English

*Because the subjects are Navajo speakers as well as English speakers, it is helpful to examine the contrasts between the two languages. Such an examination may help in understanding the miscues produced by the readers that are language related. The differences between Navajo and English presented here are based on the work done by Young (1968), Young and Morgan (1972), Goosen (1967), and Saville (1976). Only the major contrasts are provided with English examples listed where possible. N designates Navajo and E designates English.

Phonology

1. Vowels

There are basically four vowels in Navajo

	<u>N</u>	<u>E</u>
a	gaḍ--juniper	fa <u>th</u> er
e	e'e'aah--west	me <u>t</u>
i	sis--belt	si <u>t</u>
o	hosh--cactus	no <u>t</u> e

Vowels may be either long or short in duration, the long vowels being indicated by a doubling of the letter. The length does not affect the quality of the vowel, in most cases, except that /ii/ is always pronounced as /i/ in machine. Other differences in the vowel system involve nasalization and tonal pitch.

* This section is adapted from an unpublished dissertation by Diane DuBois, 1977.

In the following examples, a tone mark on the letter indicates a rise in pitch. The change in pitch in Navajo serves as the only distinctive feature to differentiate meaning of these words:

<u>N</u> ní azee' níł doo	<u>E</u> you medicine he is not	<u>N</u> ní azée' níł dóó	<u>E</u> he says mouth you are and
---------------------------------------	---	---------------------------------------	--

Whereas Navajo uses fixed tones with relation to vowels and syllabic nasals to distinguish meaning, English uses a variety of sentence pitch patterns, or intonational contours. English makes use of stress to distinguish meaning in some words and stress is never distinctive in Navajo (Saville, 1976, p. 162). The vowels /æ/ and /ə/ do not occur in Navajo. Navajo speakers must also learn to distinguish among English /o/, /u/, and /uw/.

2. Diphthongs

The diphthongs in Navajo are: ai; aai; ao; aoo; ei; eii; oi; ooi.

<u>N</u> ai-hai-winter ei-éí-that one oi-deesdoi-it is warm	<u>E</u> something like the <u>i</u> in <u>kite</u> <u>day</u> <u>buoy</u>
--	--

3. Consonants

The symbol (') represents a glottal stop. This is the most common consonantal sound in Navajo. The glottal stop is frequently substituted for stopped consonants and added before initial vowels, making Navajo speech sound choppy to speakers of English. The following list illustrates the other major consonantal differences.

<u>N</u> b bááh--bread d díbé--sheep g gah--rabbit hw bíłhweeshne'--I told him kw kwe'é--right here ts tsah--needle zh bíłzhi'--his name	<u>E</u> like p in <u>spot</u> like t in <u>stop</u> something like k in <u>sky</u> like wh in <u>when</u> like qu in <u>quick</u> like ts in <u>hats</u> like z in <u>azure</u>
--	---

In Navajo there are no correspondents to /f/, /v/, /θ/, /ð/, and /ŋ/. English consonant clusters present a major problem for Navajo speakers. Much of the Navajos' difficulty with English noun and verb inflections may be traced to their failure to perceive or produce final consonant clusters (Saville, 1976, p. 161).

Syntax

The words of the Navajo language can be classified into four major categories, the pronoun, the noun, the verb, and the particle which includes such things as adverbs, numerals, and conjunctions. The following section describes these major categories.

1. The Pronoun

The pronouns of Navajo occur as independent subjective and possessive, verbal incorporated subjective and objective, and a series prefixed to nouns and postpositions to indicate the possessor and object respectively.

The Navajo verb contains within its structure the elements indicative of the pronominal subject. Independent subjective pronouns are not necessary with the verbs as they are with English. The case is analogous to that of Spanish where the verb endings denote person. The following examples illustrate this:

English--I talk	
Spanish--hablo	-o indicates 1st person singular
Navajo--yáshti'	-sh- indicates 1st person singular

2. The Noun

Navajo nouns can be grouped into the following categories:

- a. Basic nouns--this group refers largely to natural objects and phenomena.
- b. Constantly possessed nouns--this group comprises relationship terms and names of body parts which cannot logically be dissociated from a possessor.
- c. Nouns composed of a stem and a prefix.
- d. Abstract verbs used as nouns--two examples are provided with a literal translation for each:

halgai--plain (ha-, pronoun referring to place; -lgai, white)

nímasii--potato (nímaz-, it is globular; -ii, the one which)
- e. Compound nouns--these range from simple compounds to long descriptive phrases. One example with its literal translation is the Navajo word for onion.

tt'ohchin--tt'oh-, grass; -chin, smells

Few Navajo nouns are inflected for plural. Therefore, a common error in English is four dog.

3. Grammatical Gender

In Navajo, gender is not expressed by special forms. Its expression is as unimportant for clarity in the Navajo pronoun as it is in the English noun. Both languages, though, have nouns such as man, woman, and boy which, through their meaning, are concerned with gender, but there is not a special word form to distinguish gender.

English distinguishes masculine, feminine and neuter gender in the third person singular forms of the personal pronouns he, she, it; him, her, it; his, hers, its. Since Navajo does not distinguish grammatical gender, one may often hear children using the English pronouns he and she interchangeably or may hear he used in reference to a woman.

4. The Verb

The Navajo verb, unlike the English verb, often contains within its structure, not only the verbal idea, but also subject and object pronouns and many adverbial modifiers. It is, in itself, a complete sentence.

- a. Verb stem--the stem expresses the verbal idea often in an abstract, unmodified sense. Person markers, time and number markers, and adverbial indicators are prefixed to the stem to give it concrete meaning. The stem often changes with tense or mode (Goosen, 1967, p. 12).
- b. Number--in English, number is expressed as singular (one) and plural (more than one). Navajo, though, expresses number as singular (one), dual (two), plural (more than two), and distributive plural (indicating not only that the number is more than two, but also that each of the subjects or objects in reference is taking part in the act, state or condition denoted by the verb).
- c. Tense--the Navajo verb expresses time as future, present or past. The present tense is expressed principally in the imperfective and progressive mode forms. In general, the imperfectives of the momentaneous aspect translate "in the act of," or "about to," while the continuative and repetitive render a simple present (Young and Morgan, 1972, p. 46).

5. The Particles

- a. Adjectives--Navajo does not have an adjective class, as such. Neuter verbs (forms expressing a state, quality or condition without direct reference to a preceding action) perform a function comparable to that of the adjective class in English (Young, 1968, p. 162).

- b. Adverbs--adverbial concepts are often expressed by prefixed elements incorporated within the verbal base. These prefixes replace, to a large extent, the adverbs of English, and to some extent, the English prepositions (Young and Morgan, 1972, pp. 62-63).

Literal translations are provided in the following discussion when possible to acquaint the reader with Navajo word order.

1. Questions

A question announcer is often used to introduce a question. There is no English equivalent. Da' introduces questions that can be answered with yes or no. It is often followed by -ísh, another sign of the question.

In English, the tone of the sentence indicates a question. In Navajo, certain syllables designate questions since the words must retain the proper tone and cannot be changed as in English.

N: Da' Baa' bidebé dahólǫ?

E: Does Baa' his sheep he has?
Does Baa' have sheep?

2. Negation

Dooda--this word is split in negating a statement.

N: Chii bichidí doo yá'át'éeh da.

E: Chee his car (not) it is good.
Chee's car is no good.

English negative questions can pose some problems for Navajo speakers. In Navajo, a negative question may be answered only with yes or a statement to the contrary. To illustrate:

N: Doósh béénílniih da?
E: Don't you remember?

N: Aoo', doo bénáshniih da.
E: Yes, I don't remember.

Many Navajos will answer in the Navajo form even in English.

3. Possession

Possession in Navajo is expressed by possessive forms of the personal pronouns which are prefixed to the noun representing the possessed object. In English, a possessive pronoun precedes the noun representing the object possessed.

N: shich'ah
 E: my hat

If the possessor is also represented nominally, the noun representing the possessor precedes the noun representing the possessed object. English uses a suffix, /-s/ for singular and /-s'/ for plural.

N: 'ashkii bich'ah
 E: boy his hat
 the boy's hat

4. Word Order

Navajo word order, very generally, is noun, object, verb. English word order is noun, verb, object.

N: Kii Baa yíká adoolwoł.
 E: Kee Bah he will help.
 Kee will help Bah.

The preceding description of the Navajo language and its contrasts with the English language, while not complete, serves to illustrate the major areas of confusion for Navajo children learning to read English. The English word had, for example, when pronounced by a Navajo, may sound like hat, due to the use of the glottal stop. Make and made may also both end with glottal stop. Noun and verb inflections in English may be dropped because of a failure to perceive or produce final consonant clusters. Other areas of English that may cause problems for a Navajo reader are questions, negation, pronominal confusions, possession, and a different semantic system which categorizes experience in a different way.

A Navajo Fourth Grader

NAS19, Alberta, at the time of this study is a ten year old Navajo girl. Her family lives near Piñon, Arizona, in a place she calls Ts'asitdz'o, but Alberta attends a boarding school run by the Bureau of Indian Affairs at Chinle, Arizona. Alberta and her family speak Navajo fluently and when at home, she speaks little English. Her family does know some English, but she tends to use her English more when she is at school. She has traveled all over the reservation and has made a trip to California with her father who works for the railroad.

Following is Alberta's retelling of S51:

R: OK. Thank you, Alberta. All right, I'd like you to tell me what you can remember about that story now.

S: Um...The doll's face was green.

R: OK.

S: Um...Freddie found...ruler, tape...

R: Um hmm.

S: bulp...

R: Um hmm...(pause)...

S: ...the threat

R: Uh huh...(pause)...OK...What were those things for?

S: To help...to help her sister.

R: Uh huh...(long pause)...

S: And to get her mudder.

R: Um hmm. ...(long pause)...OK. ...(long pause)...OK. ...Let's see. ...uh, ...OK, to help her sister...and get her mother. ...OK.

S: And try to have some flashlight.

R: Um hmm. ...(pause)...OK. ...Flashlight...(long pause)...

S: Tried to get the light down.

R: Tried to get the light down. ...(pause)...OK...(pause)...

S: Freddie was ... did sometin to da refrigerator.

R: Um hmm. OK. ...(pause)...OK. ...(long pause)...OK., let's stop now so that, now, I'm going to ask you some questions to see if you can remember more than you told me, Alberta, um, ...You said the doll's face turned green. Do you remember that part of the story?

S: Yes.

R: OK. Can you tell me something about that? OK. ...What about the doll's face turning green? ...You remember how that happened?

S: I once remembered when I was going to the dining room.

R: When what?

S: When I was...remember when I, when I was going to the dining room.

R: OK. OK. So we'll give you a little time to think about it. Cause that was a little ways back. ...Well, let's, let's come back to that later, Alberta. Um, let's see if you'll remember some of the other parts and then that may help you remember. OK. Um, Freddie helped his sister. Do you remember how he helped his sister?

S: Um. ...Her sister, her sister was yellin by da door.

R: Um hmm. Yelling by the door. ...(pause)...She was yelling by the door. OK.

S: And said, "Help, help,"

R: Um hmm. ...Um hmm. ...

S: Den, uh...

R: Do you remember why?...Why she was calling, "help, help!" ...Where was she, do you know?

S: Uh uh. (negative)

R: OK. Do you remember - did she like where she was?

S: Uh uh (negative). She didn't like it. She said, um, "Freddie, ... Freddie where are you?" And said, "Help, help."

R: Um hmm. Um hmm. ...OK. ...(pause)...OK. She called, "Freddie, Freddie where are you?"

S: Freddie said, "I'm in da hallway, in da closet."

R: OK. ...(pause)...What happened then?

S: Ummm. ...(long pause)...

R: Do you remember what it was like there? ...(pause)...

S: Freddie said, "What's da matter?"

R: Um hmm. ...Then, ...What was the matter?

S: Um ... Freddie's sister said, "It's so bad in here."

R: Uh huh.

S: Dat's what happened in da book.

R: That's what happened, what?

S: Dat's what happened in da book.

R: In the book. Uh-huh. ...OK. So what did Freddie do?

S: Uh ... fix, uh, da tape, all dat...

R: Um hmm, OK.

S: ...on da flashlight.

R: Um hmm.

S: ...and all those things.

R: OK. How did that help?

S: Um, he make da ...to make da flashlight ... run.

R: OK. All right, to make the flashlight run. Uh huh. ...(pause)
...OK. Then he made the flashlight run. Then what did he do?

S: Then he help her sister.

R: Uh huh. How did he do that?

S: Wit da flashlight...bright.

R: OK. OK. What did he do with the flashlight?

S: He, um, ...he help her sister with it.

R: Uh huh. ...Can you tell me how that helped her?

S: Da, um, ...(pause)...

R: OK. One time you said, uh, when you were telling me this, everything that happened in the story, you said he tried to get the light down. Can you tell me what you meant by that?

S: Freddie said, "Elizabeth, Elizabeth. Here comes the light."

R: Uh huh.

S: Oh, no, no ... Elizabeth trapped up. No, wait, Freddie said, "Here comes da light."

R: Uh huh.

S: "I'm going to drop dis down and hold da light by da ... by the door."

R: "Uh huh. How did he get it down? Do you know? ...(pause)..."

S: He went down da stair and...

R: Uh huh.

S: pushed da stairs up and ...

R: OK. ...

S: Climb up to da light.

R: OK. Then, you tell me some other things, uh, Freddie did, uh, he did something to the refrigerator ... do you remember what he did to the refrigerator?

S: He made something smell.

R: Uh huh.

S: To got a refrigerator.

R: OK. Uh huh. What happened when he made something smell in the refrigerator?

S: I can't remember dat.

R: OK. Then, uh, what kinds of things did Freddie do?

S: About the last part.

R: Did he do good things or bad things?

S: Bat things.

R: He did bad things. Did everything he do, uh, bad, was it bad?

S: Bad and goot.

R: Bad and good. OK. ...OK. Tell me, uh, which were the bad things?

S: He make da doll's face green...

R: Um hmm.

S: ...and something smell in the refrigerator.

R: Um hmm.

S: Um ...(pause) ...

R: OK. Can you think of any other bad things he did? ...(long pause)...What about good things? What did he do that was (S breaks in).

S: Goot things. He help her sister.

R: Uh huh.

S: He make the flashlight run...

R: Um hmm. OK. ...What kind of boy would you say Freddie was? ... (pause) ...Do you think they are all bad things, or did they just get him in trouble.

- S: They all get him in trouble.
- R: OK. OK. ...Were they, was he really trying to do good that he got in trouble?
- S: Yeah.
- R: All right, uh, uh, ...(long pause)...OK. Do you think the story is trying to teach us anything? (pause)
- S: I hope it's teaching us.
- R: What did you say, um, I didn't hear you.
- S: I hope it's teaching us.
- R: You hope it's teaching us. OK. Uh, can you think of anything that it does teach? ...about people, perhaps?
- S: Um...
- R: Does it teach us anything about, about, um, you tell me what you think.
- S: Dey, they tell us how to tie our, our shoe strings, how to button (glottal) our dress. How to clean, to comb our hair.
- R: Oh, I mean this story. This story about Freddie Miller.
- S: Um, ...
- R: Do you think this story is telling us anything? ...(long pause) ... OK. Well, let's think about something else. Uh, Alberta, if you went back to the classroom and, uh, one of your friends said, "What did you do while you were gone?" And you said, "I read a story," and then they said, "What was the story about?" could you tell them what the story was about very briefly? Could you, could you try and do that for me? Just tell me what the story is all about in just a few words. OK? Do that for me, please.
- S: In class?
- R: No. I mean just tell me how you would, uh, say what the story was all about, um, in just a few words...(long pause)... Suppose one of your friends said, uh, "What did you read" and you said, "Freddie Miller," and your friend said, "What's Freddie Miller about?" What would you say to your friend?
- S: Um ... (pause) ...
- R: Is that a hard question, Alberta?

- S: Yeah.
- R: OK. Let that question go. Let me ask you just a couple of other things. Did you like the story?
- S: Yes.
- R: Was there one part that you liked more than any of the other parts?
- S: I like all of da part.
- R: All of the parts. Uh huh. Did you think it was a funny story?
- S: Uh uh (negative).
- R: How would you describe the story? What kind of a story do you think it is? ...(pause)... Do you think it was a sad story?
- S: Yeah.
- R: Why?
- S: Because da doll's face is green.
- R: Uh huh. OK. Was it sad all the way or did it turn out all right?
- S: It turn out all right.

English is a second language for Alberta. The effects of this show up in Alberta's reading and retellings. She uses a null form of the past tense three times in her retelling of S51: "...climb up to the light," "He help her sister," and "It turn out all right." In retelling S83, she uses one: "and he touch with his hand..." For the past tense of irregular verbs, she shifts to the present tense twice in S51: "He make* the doll's face green," and "he make the flashlight run." In S83 she said: "...roped the littlest lamb and take the littlest lamb out." She produces one null form of the possessive in S83: "and the littlest lamb heart was beating." She produces one null form of the third person singular, also in S83: "He know how to rope." She uses one unusual noun plural in retelling S51: "and try to have some flashlight," and one in S83: "Then we found all the sheeps together."

She produces some interesting structures, also, such as "Elizabeth trapped up," and "pushed the stairs up", from S51, and "we eat the lunch and herding the sheep" from S83.

* Made and make may be produced as identical with both taking final glottal stops.

Alberta does some interesting things with pronouns. In her retelling of S51, she produces for masculine pronouns: "to help her sister," "and to get her mother," and "her sister, his sister was yelling by the door."

For S83, the following incident occurred in retelling:

- S: He tried to learn how to rope.
 R: Who tried to learn how to rope?
 S: The black horse.
 R: The black horse was going to rope?
 S: Yeah.
 R: Who was the black horse going to rope?
 S: Salt Boy.
 R: Salt Boy. The horse was going to rope the boy?
 S: No.
 R: No?
 S: The boy was going to rope the horse.

Also in S83:

- R: So did he use it for anything after that?
 S: He used for the littlest lamb.

This sequence illustrates problems in communicating what she has comprehended. Notice in the retelling some lack of communication involving the word "remember." Yet in both retellings, Alberta uses standard English forms frequently, too.

When she reads, she exhibits some of the same language features, plus some additional ones, as she exhibited in her retellings. In S51, the percentage of dialect miscues is 23.4, while for the culturally more relevant S83, it is 35.5%.

For S51, Alberta produces 33 null forms of past tense verbs. On S83, she produces 26 null forms. Secondary dialect is involved in 2 and 8.2% of the stories and 10.2 and 24.5% are coded doubtful dialect.

For the null form of plural nouns, she produces, while reading, S51, "...his other uncle, too." The rest of the time in S51, she uses the plural s.

In S83 she produces these noun plural deletions or insertions:

0302 ^{woods}
wood in his arms.

0704 was in his hand^s

0210 ^{horses}
the black horse stood

1303 he held big rock^s

0802 many time^s

0901 his leg^s hurt

She uses null form possessives in the following examples in S51: Freddie/Freddie's (2), sister/sister's (2), Elizabeth/Elizabeth's. In S83, she produces: boy mother sheep/boy's mother's sheep, cave/cave's.

She shows these non-inflected verbs:

S51 0208 ^{grow}
had grown up

S83 1002 ^{begin}
noise began

0315 ^{know}
I knew it was

1208 ^{fall}
he fell

0519 ^{became}
could become

1302 ^{get}
got the rope

She has one be deletion:

S51 0713 You^{'re} wonderful

Alberta produces these other dialect-related miscues:

S51 0225 I^{'ll} keep.

0310 and 0315 Freddie didn't mind 515

0408 and 0416 talking ^{angry} angrily

S83 0205 horse ^{don't} didn't hear

0303 sometimes/sometime

1401 It was ^{laying} lying very still

Alberta has 9.82 coded MPHW on S51 and 5.84 on S83. The difference in difficulty on the two stories is shown in her percent of semantic acceptability, 22.4% on S51 and 46.9% on S83. On S51 she corrects 10.2%, but all of those were on unacceptable miscues, whereas of her 12.2% correction on S83, only 8.2% were on semantically unacceptable miscues. Her resulting comprehending scores are 32.7% on S51 and 55.4% on S83; her residual MPHW is 5.06 and 1.66.

Her retelling scores are 32 on S51 and 69 on S83. With the other data, this demonstrates that Alberta does control English receptively well enough to comprehend quite well. Her greater accuracy on S83 as reflected by lower coded MPHW and qualitatively better miscues, as shown in her low residual MPHW and moderate comprehending score, are underscored by a very complete retelling.

We can't neglect, however, the perceptive job the researcher did in eliciting her retelling; that's shown above in the "roping the black horse" episode, which starts the retelling. Alberta has only one line of free retelling in S83: "He tried to learn to rope". Everything else is response to questioning. But the questions simply echo prior response and encourage continued retelling.

Here's more of her retelling interview that illustrates this careful encouragement and its payoff in revealing Alberta's understanding.

S83:

R: Why did they walk down the canyon?

S: To get the sheep.

R: To get the sheep. And where did they take the sheep to? Or what did they do with the sheep when they got them?

S: They herd ... the sheep to the grass.

R: They herd the sheep to the grass. OK. Ahh. Then what happened?
...(pause)... Did anything happen after that?

- S: The boy was sitting up in the tree. His father was walking with the black horse.
- R: His father was walking with the black horse and the boy was watching.
- S: And the boy was watching his father and the black horse.
- R: Um hum (yes). That's right. OK. Did something happen after that?
- S: The littlest lamb was missing. The little boy tried to get the littlest lamb in the wash.
- R: Did he? Was he able to? How did he get the lamb?
- S: He crawled on his knees and tried to get the rope.
- R: Then did he get the rope?
- S: Yeah.
- R: What did he do with the rope?
- S: Roped the littlest lamb and take the littlest lamb out.
- R: He roped the lamb and took it out. OK. How did he feel about saving the littlest lamb?
- S: He thought the the littlest lamb was dead and he put his head close to the littlest lamb. And the littlest lamb heart was beating.
- R: Very good. Did Salt Boy learn how to rope the black horse?
- S: Ummm (no).
- R: Why not?
- S: The father said, "I'm gonna teach you how to rope the black horse tomorrow."

The last response shows Alberta's very insightful distinction in a concept highly relevant to her experience.

Alberta shows 57.1 and 69.4% syntactic acceptability in S51 and S83. Like her peers she shows the unusual pattern of higher graphic and phonemic proximity means for S83, the story she found easier, than on S51.

Her low rates of correction on both stories are accompanied by low rates of unsuccessful correction, 10.5% on S51 and 2% on S83.

Her control of English syntax is shown in the two stories by 40.8% and 59.2% of fully acceptable miscues. She has 10.2% on S51 and 8.2% on S83 that are acceptable except for other miscues and 6.1% and 2% acceptable in sentence only. These last result from such things as pronoun gender mismatches:

S51 0208 ^{Switzerland} Switzerland, where Mrs. Miller ^{and} had growⁿ up. ^{He} She was

Alberta has 16.3% syntactically unacceptable miscues and 26.5% partially acceptable in S51 and 12.2% unacceptable and 18.4% partially acceptable in S83.

Her miscues involve more transformations to different deep structures on S83 than on S51, 57.1% compared to 44.9%, but in only 6.3% on both stories does she lose deep structure entirely.

Here's a page from S83, Salt Boy, with the miscues marked:

0501 In the morning, Salt Boy took his mother's sheep to the canyon for
0502 grass.

0503 Near the wash at the bottom of the canyon the grass was green and
0504 deep, and the sheep ran to it, pushing against each other. When the
0505 sheep ran, the lamb that was littlest lost its mother and cried, "M-a-a."
0506 Salt Boy ^{love} lifted it, and ^{carry} carried it with ^{gentness} gentleness to its mother.

0601 There was a tall flat rock by the grass where the sheep ^{went} were, and
0602 Salt Boy ^d climbed up on it. From there he could watch the sheep, and
0603 if he ^d turned around and ^{then} ^d leaned over, he could see the cave that held
0604 that thing he had found.

0605 He remembered the ^{things} morning he had found it there. At first, when he
0606 saw it in the cave, he had thought it was a snake, and he had felt it with

0607 ^{his} a long stick, and moved ^d it, and turned ^d over. When the stick told
0608 him it was a thing ^{tongue} without life, he had gone close to it, and put his hand
0609 on it. It wasn't until then he had known it was a rope.
0610 He had pulled ^d it carefully and slowly out ^{without} of the darkness in the cave.
0611 Then he had sat on the ground and ^{de} looked ^d at it, and felt it, and held it.
0612 He had done that with it all day, until it was time to take his mother's
0613 sheep back up on the canyon path. Then he had coiled ^{scale} it very slowly, and
0614 put it back in the cave's darkness.

In this excerpt, Alberta shows considerable dialect, particularly through -ed deletion.

But her control of syntax is shown in several examples: retention of the ness suffix in \$gentness/gentleness; insertion of then in an appropriate position before a verb in 0603; omission of it in 0606 in a syntactically acceptable position; substitution of went/were, love/lifted, things/morning, his/a; tongue/thing, without/out of.

She produces in 0605, the things he had found in there for the morning he had found it there, transforming to another acceptable deep structure.

She produces here only one structure we must code syntactically unacceptable (line 0613).

She has only one coded intonation miscue in the two stories:

S83 0701 After that morning he had taken the rope out of the cave^{Many} many

0702 times^o He had learned to tie it well, and he had learned to

throw it.

This comes late in the story and at a time when her miscues are diminishing in frequency.

She has 12.2% insertions and 8.2% omissions on S83, 2% insertions, and 3.9% omission on S51. She inserts the three times in the first two pages:

0102 ^{the} then, one morning

0104 ^{the} getting wood

0203 ^{the} and watch his father

In all cases, the is in the visual periphery. She also inserts then (above) and shows two other insertions:

1305 He missed^{ne}, and threw again

1507 I will teach you^{how} to rope the black horse"

She shows a high 31.1% peripheral field miscues on S83 and 16.5% on S51.

Alberta has 23.5% non-word substitutions on S51 and 8.2% on S83. Here are examples from S51: \$expined/exclaimed; \$chemisals/chemicals; awonce/allowance; \$disappointerments/disappointments; \$scintness/scientist's; \$explot/explode; \$extrain/interesting; \$stressmis/chemist; \$shrean/siren; \$excetly/excitedly.

These differences in her handling of the two stories can not be unrelated to how things come together semantically for Alberta on S83, but much less on S51.

In S83, 24.5% of her non-dialect miscues are fully semantically acceptable in the passage and another 10.2% would have been except for other miscues in the sentence. Another 10.2% are acceptable in the sentence but not the passage.

But in S51, only 4.1% are fully acceptable, and 4.1% more are acceptable miscues compounded by unacceptable miscues. 8.2% are acceptable in the sentence only.

Totally unacceptable semantically are 49% of S51 miscues, but 24.5% of S83. 38.5% of S51 miscues and 28.5% of S83 miscues are partially acceptable semantically.

Alberta, through her reading of these two stories, shows differences and similarities that reflect how she reads when she's really getting sense from her reading and how she reads when the sense is not fully together. She also shows her competence to comprehend written English when the circumstances are favorable.

Navajo Fourth Grade

All of her peers show Alberta's pattern of better reading performance on S83 than S51. (See Table 6-20)

Mean coded MPHWS is 18.8% on S51 and 10.88 on S83. All but NA520 show higher dialect percent on S83 than S51. Non-dialect miscue means are 15.43 and 8.84. Corrections are 7.1% on S51 and 15.1% on S83. All subjects have higher correction on S83.

But the three other NA4 readers don't show Alberta's higher semantic acceptability on S83 over S51; they show higher acceptability on S51. Group means, with Alberta's sharp difference are near equal, 35% and 35.7%.

Comprehending means are about equal for all but Alberta. She is lower than the others on S51 and higher on S83.

Table 6-20

NAVAJO FOURTH GRADE GROUP STATISTICS

Subject Number Story Number	512		515		519		520		GROUP MEANS	
	51*	83**	51	83	51	83	51	83	51	83
Total Miscues	157	99	217	114	123	76	340	206	209	124
Coded Miscues	64	70	58	61	64	76	61	56	62	66
MPHW	11.96	7.50	21.64	10.12	9.82	5.84	31.94	20.07	18.8	10.88
Dialect Miscues	14	20	8	11	15	27	11	6	12	16
MPHW	2.62	2.14	2.99	1.82	2.30	2.05	5.76	2.15	3.42	2.04
Percent	21.9	28.6	13.8	18.0	23.4	35.5	18.0	10.7	19.3	23.2
Non-Dialect Miscues	50	50	50	50	49	49	50	50	50	50
MPHW	9.35	5.36	18.66	8.29	7.52	3.72	26.18	17.92	15.43	8.84
Residual MPHW	5.42	3.00	10.07	4.15	5.06	1.66	15.71	11.11	9.06	4.98
% corrected	6.0	22.0	8.0	20.0	10.2	12.2	4.0	6.0	7.1	15.1
% sem. acceptable	36.0	26.0	42.0	36.0	22.4	46.9	38.0	34.0	35.0	35.7
% sem. unacc. but corr.	6.0	18.0	4.0	14.0	10.2	8.2	2.0	4.0	5.55	11.05
Comprehending percent	42.0	44.0	46.0	50.0	32.7	55.1	40.0	38.0	40.2	46.8
% syn. acceptable	58.0	56.0	72.0	54.0	57.1	69.4	44.0	52.0	57.8	57.9
Proximity means										
graphic	5.58	5.61	4.76	5.35	5.28	5.87	4.98	5.11	5.15	5.49
phonemic	5.17	5.24	4.40	4.48	4.81	5.16	4.19	4.61	4.64	4.87
syntactic	7.31	8.25	7.47	7.44	8.54	7.88	8.05	7.35	7.84	7.73
semantic	5.89	6.00	6.36	6.06	5.33	7.00	6.05	7.06	5.91	6.53

* S51 Freddie Miller, Scientist

**S83 Salt Boy

Residual MPHW is lower on S83, reflecting the greater quantity of miscues produced.

Syntactic acceptability means are virtually identical, 57.8 and 57.9%. NA515 shows 72% on S51, reversing Alberta's high showing of 69% on S83.

Group graphic and phonemic means are slightly higher on S83 than S51; all subjects show that pattern.

Range among NA4 readers is considerable on most variables. NA520, Jim, shows high quantity measures, 31.94 coded MPHW on S51 and 20.07 on S83. Even his residual MPHW is 15.71 and 11.11. He shows low correction, 4 and 6%, but is near group means in semantic acceptability, though below in syntactic.

Yet Jim is second highest in retelling on S83, scoring 46, well below Alberta, but above the 44 of NA512 and 40 of NA515. He is low with 27 on S51 in a narrow range of low NA4 retelling scores, 27 to 34.

Here's his reading of the same section shown above for Alberta:

0501 In the morning, ^{Sally} Salt Boy took his mother^(d)'s sheep to the canyon for
 0502 grass.

0503 Near the wash at the bottom of the canyon the grass was green^{(c) wa-} and
 0504 deep, and the sheep ran to it, ^{(uc) 1. push 2. push} pushing against each other. ^{again} When the
 0505 sheep ran, ^{(c) and} the lamb that was little^(c)st lost its mother and ^{lose} cried, "M-a-a."
 0506 ^{Sally} Salt Boy ^{left} lifted it, and ^{carry} carried it with ^{was (d) \$gentel} gentleness to its mother. ^{it (c)}

0601 ^{clere} There was a tall flat rock ^{fall rocks (c) about} by the grass ^{there} where the sheep were, and
 0602 ^{Sally} Salt Boy climbed up on it. From there he could watch the sheep, and
 0603 if he ^{turns} turned around and ^{lean up} leaned over, he could see the cave that held
 0604 ^{at down} that thing he had found.

0605 ^{\$arom} He remembered the morning he had found it there. At first^(c), when he
 0606 saw it in the cave, he had ^{\$thoughten} thought it was a snake, and he had felt it with

0607 a long stick, and moved ^{de} it, and turned ^{de} it over. When the stick ^{much} told
 0608 him it was a thing without ^{wisout} life, he had gone close to it, and put his hand
 0609 on it. It wasn't until then he had ^{under when} ^{know - its} known it was a rope.
 0610 He had pulled it carefully ^{out} and slowly out of the darkness in the cave.
 0611 Then he had sat on the ground and looked ^{when} at it, and ^{for} felt it, and ^{hunt} held it.
 0612 He had done that with it all day, until it was time to take ^{what he its} ^{mo -} his mother's
 0613 sheep back up the canyon path. Then he had ^{pas} ^d ^{when} ^{couldn't} coiled it very slowly, and
 0614 put it back in the cave's darkness.

Several things show here that are interesting. Jim has some dialect miscues similar to Alberta.

He shows a strong tendency to substitute real English words which may make sense in context: call/cried; there/where; hide/held; about/by; and/the; under/until; put/pulled; touch/told; when/then. But several make little sense in the context in which they're inserted: bubble/bottom; again/against; over/other; fall/flat; learn up/leaned over; at/that; down/thing; he/with; its/it; couldn't/coiled.

He corrects a few partials and corrects one miscue (0505); but he leaves a lot of miscues uncorrected. He produces a few non-words. The reader also shows there/where (0601); when/then (0609, 0611, 0613); and what/that (0612) confusions. But he reads there correctly (0601, 0602, 0605), when correctly (0504, 0605, 0607) and that correctly (0505, 0603). In the story he has seven when for then substitutions, five what for that substitutions. This type of miscue is common among first language readers of English. This pattern shows a word focus that seems to transcend a search for meaning.

Yet here is a section from his retelling, again under careful encouragement:

Retelling of S83 NA520 Jim

R: Tell me everything that you remember that you read. (pause) Go ahead.

S: The lamb went in the water.

R: The lamb went in the water. Go ahead.

S: His father went to teach how to rope.

R: To teach - what?

S: How to rope.

R: Go ahead. (pause) What else?

S: He had a rope.

R: OK.

S: He herd sheep in the canyon.

R: He herds sheep in the canyon.

S: Yeah.

R: Go ahead.

S: He rope the little lamb.

R: Go ahead.

S: The wind blew.
R: Go ahead.
S: He went in the -- in the cave.
R: OK, go ahead.
S: He climb up a tree.
R: OK.
S: He look at the rock.
R: Uh huh.
S: He had a rope.
R: What else?
S: He had sheep.
R: Whose sheep were they?
S: Mudder.
R: OK.
S: He have black horse.
R: Who had?
S: Fada.
R: What?
S: Fada.
R: Father had the black horse. OK. Who was in the story?
S: Sally Boy.
R: And who else?
S: Fada.
R: Who else?
S: Mudder.
R: Who else?
S: Little lamb.
R: Who else?

S: Black horse.

R: And who else? (pause) Anybody else?

S: That's all.

R: OK. Tell me what was Sally Boy like? What kind of boy is Sally Boy? (pause) Is he a big boy or a little boy or is he a nice boy or what does he do? What kind of boy is he?

S: Little.

R: He's a little boy. How old do you think?

S: Ten.

R: What does Sally Boy like to do?

S: Do roping.

R: What?

S: Roping.

R: He likes to rope?

S: Yes.

R: OK. Anything else he likes to do?

S: No.

R: So how's he going to find out how to rope?

S: Father teach him.

R: OK. When is he going to teach him? (pause) What does he want to rope?

S: Black horse.

R: Anything else?

S: Yes.

R: What does Sally Boy rope?

S: Little lamb.

R: Why did he rope little lamb?

S: He was in the water.

R: Why did the little lamb go in the water?

S: The water came.

R: Where did the water come from?

S: Rain.

R: OK. Where was the water?

S: In the dam.

R: And how did the lamb get in the water? (pause) How did he know that the lamb was in the water?

S: One, one lamb was missing?

R: How did he know?

S: He see the sheep.

R: How did he get the rope?

S: The rope in the cave. He put the...the rope in the cave.

R: Did he only use the rope for the little lamb?

S: No.

R: What else?

S: Sheep.

R: Anything else?

S: No.

With all of his reluctance to answer questions calling for judgment, the reader reveals an understanding of the events, setting and sequence of the story. He also reveals considerable control of English. Neither of these seem consistent with his high quantity and low quality of miscues.

Even in retelling of S51, he's able to relate, under questioning, that "Fred" made a flashlight, that his sister was locked in a small room with a window on the door, that it was dark, and she couldn't see until he gave her the flashlight.

Again we must caution that the retelling may not reveal the full extent of the comprehension of these readers.

With a group mean of only 7% correction on S51 unsuccessful correction is almost double that with 13.6%. The pattern is opposite on S83, 15.1% correction and 6% unsuccessful correction. That means attempted correction is very close, 20.6 and 21.1% and degree of success is the difference.

NA4 has higher correction rates on miscues with partial syntactic acceptability on S83, 26.8%. Such miscues are most corrected in S51, but at only a 10.5% rate. Of fully syntactically acceptable miscues with and without compounding miscues, about 5.5% are corrected in S51, and about 11.5% in S83.

Unsuccessful attempts in S51 are highest, 25% for miscues acceptable in the passage except for other miscues in the same sentence. Higher rates of unsuccessful corrections in S83 are on such miscues (11.4%) and fully unacceptable miscues (10.8%).

NA4 corrects 18% of miscues with partial semantic acceptability on S51, but only 4.4% of unacceptable miscues, 8.3% of miscues acceptable in sentence only, 6.5% of passage acceptable miscues compounded by unacceptable miscues and no fully acceptable miscues.

Only miscues semantically acceptable in sentence only with and without compounding miscues have higher than average rates of unsuccessful correction in S51 (16.7 and 20%).

In S83, 21.7% of miscues with partial semantic acceptability are corrected, as were one-third of miscues that are acceptable in sentence but for other miscues. There are no important patterns for unsuccessful correction.

NA4 corrects 14.8% of miscues with no phonemic proximity in S51, and 31.8% of them in S83. This is, in both cases, double the story rate of correction for the group. In S83, about 20% of other miscues with phonemic proximity 4 or below (common beginnings) are corrected. In S51, 32.1% of miscues coded 6 (beginning and middle or beginning and end in common) involve unsuccessful correction attempts. These may be multiple attempts at non-words. In S83, 11.4% of single difference miscues are corrected.

Corrections are 18.5% of function words in S51 and 14.3% of indeterminants. Unsuccessful attempts are high on verb modifiers, 40%. In S83, successful corrections are high on nouns, 26.1% and noun modifiers, 33.4%. Unsuccessful attempts are 22.2% of indeterminants. Interestingly, almost no verb miscues are corrected in either story, though unsuccessful attempts are 12.9% and 9.1%.

These correction patterns indicate that, even with low rates of correction, NA4 miscues show similar tendencies to other readers. Again, the single reading process shows through.

Graphophonic proximity means are higher in S83 than S51. But the pattern of distribution between the two stories shows some interesting contrasts: in S51, graphic proximity is coded 18.1% 0-3, 50.3% 4-6, 31.6% 7-9; in S83, this is 17.4% 0-3, 41.5% 4-6, 41.1% 7-9. The difference is not in numbers of low graphic proximity miscues, but in relative numbers of moderate and highly similar ER's and OR's. For phonemic proximity, distribution on S51 is 29.5% 0-3, 43.5% 4-6, and 27.2% 7-9. On S83, it is 25.8% 0-3, 41.6% 4-6; and 32.6% 7-9. Here the modest shift is low to high with similar moderate frequency.

As with Alberta, non-words are more numerous on S51 than S83 for all subjects, 19.1% mean compared to 10.7%. Only Lisa, NA512, produces relatively equal percents in both stories, 9.6 and 11.5%. She is also the one NA4 reader who prefers omission to producing non-word substitutions on S51. Her omissions are 30.8% on S51, compared with her 9.6% non-words. The others produce 3.9% to 10% omissions, but 17.6 to 26% non-words.

However, on S83 she has only 5.8% omission with a group mean of 5.9%. In fact, as her reading of S51 shows, her heavy omission rate reflects a conscious decision to omit words she's not sure she knows.

She has three alternate performance choices at each problem point: to substitute real words, to substitute non-words, or to omit. All these strategies are available to her, but her use of them reveals a remarkable pattern.

Here are the opening lines of the typescript:

S53 NA512 Lisa

0101 (re-reads) terrible
Poor Freddie was in trouble again. He had been

0102 ~~experimenting~~ ^{experimenting} with his chemistry set, and ^{©Ella-} Elizabeth's doll

0103 had turned green.

0104 His little sister was heartbroken, Freddie's mother was

0105 angry. "You've wrecked that doll!" she exclaimed.

0106 "What queer ^{excrement} experiment was it this time?"

She pauses after been (line 0101) for thirty seconds. The following conversation occurs between Lisa and the researcher:

- R: Are you thinking what that is?
 S: Yes.
 R: OK, say what you're thinking out loud, OK?
 S: Yes.
 R: Go ahead.
 S: \$expermeeting.

Then she reads through his (line 0102) and pauses again for twenty-eight seconds.

- R: Say what you're thinking out loud. (25 second pause) Do you want to start again?
 S: Yes.
 R: OK. Why don't you start again?

Lisa rereads, repeating her prior miscue for trouble, but also shifting to anger for again. She repeats her non-word for experimenting. A ten second pause comes again after his (0102).

- R: Are you thinking something?
 S: Yes.
 R: Say what you're thinking. (25 second pause) You want to leave that out and go on?
 S: Yes.
 R: You can do that, too, if you want to.

Lisa continues to Elizabeth's (0102), pauses thirteen seconds, produces Elila--, and immediately self-corrects. She continues then with only a four second pause before her heartbroke/heart broken substitution (0104). Her next short pause, only a few seconds, is accompanied by a repetition of you've before reeked (0105). A twenty second pause precedes exclaim for exclaimed (0105). The pause after what is twenty five seconds (0106).

- R: If you really can't guess anything, you can leave it out and go on, but try to guess first and then if you can't, then you can go on if you want to.

Another five second pause precedes her omission of queer (0106).

After that, she shows the following pattern on lines 0201-0218: An eight second pause before correctly producing washing, six seconds before getting mixture right, sixteen seconds before omitting chemicals. After thirty-seven seconds pause before August, the researcher says "go ahead", but she says Uncle Augets, repeating the prior word. She pauses thirty seconds before Switzerland and the researcher says "Say what you're thinking." She produces \$Switzland. Again after a thirty second pause and a "say what you're thinking:", she produces \$comproning for comparing. Fifteen seconds pause precedes correct production of usually.

There are a few short pauses until she comes to chemicals. Again she has a twenty five second pause. Researcher says "Say what you're thinking"; she pauses forty seconds more; Researcher says "Want to go ahead?" She says "Yes", and omits.

The next omission, allowance, follows a twenty five second pause. Again she awaits permission to go on after Researcher suggests first saying what she thinks.

The scene is repeated three lines later with scientist's, but this time the researcher says "You can move on if you want and go on without me telling you any time you want to. OK?" She responds as usual, "Yes". After that, in the next twenty two lines, she shows these pause patterns and omissions with no more researcher encouragement (lines 0218-0311):

Omissions by Lisa NA512

pause duration	omission	subsequent performance
10 seconds	disappointments	only instance of word
19 "	allowance	omits twice in story; on line 0805, says <u>al-lowance</u>
40 "	chemistry	says <u>\$tchemist</u> later
31 "	scientist	omits here and above, but then says <u>\$sciency</u>
22 "	strange	substitutes <u>strong</u> later
15 "	unknown	only instance of word
5 "	chemicals	omits 4 times in the story
6 "	explode	only instance of word
6 "	accident	substitutes <u>attempting</u> later
9 "	interesting	only instance of word
20 "	husband	only instance of word
15 "	Maximilian	see below
6 "	chemicals	see above
5 "	Maximilian	omits these 2 times, then says <u>\$Mixmiller</u>
6 "	chemist	only instance of word, but in line 0314 says <u>\$tchemist</u> for <u>chemistry</u>

In this same section, she reads queer correctly after an eight second pause, compare for compared with no pause. As the table above shows, she does finally accept permission to omit words and go on. In fact, she gets to the point where her usual pause is 5-6 seconds.

In these 22 lines, 16 omissions occur involving 14 different words.

In the prior 23 lines that we followed above, she has omitted five words. Her cultural and educational values have made it difficult for her to willingly omit words she believes she doesn't know. She's not happy to produce non-words either. Neither does she appear to be substituting meaningful words she knows aren't the right word.

But finally she feels free to omit. And then a funny thing happens. She stops omitting by line 0313, midway in page three, and for the last six pages of text she omits only three words: have, reply and either. After accepting permission to omit, she decides she doesn't need or want to omit. In fact, she produces either real word or non-word attempts on words already omitted which occur after line 0312.

Her omission pattern shows that her omissions are not evidence that she doesn't know words in some total sense or couldn't sound them out. What it shows is that she knows when she doesn't know. That could be true of any reader. The only thing that this pattern shows specifically related to her culture is her conformity and reluctance to choose her own strategies. The pattern does, of course, also demonstrate the difference between performance and competence. What she does at any point is not what she is capable of doing (competence), but what she chooses to do in particular circumstances (performance).

Syntactic acceptability for NA4 shows as follows: unacceptable, 23.1%, S51 and 18.6%, S83; partial acceptability, 19.1%, S51 and 23.6%, S83; sentence only, 2.5% on S51, 1.5% on S83; fully acceptable, 27.6% on S51, 38.2% on S83; acceptable except for other miscues, 26.1% on S51, 17.6% on S83. This shows that the major difference is that acceptable miscues in S51 are more likely to be in sentences with compounding miscues.

Two readers, NA515 and NA519, show 6.1% or less loss of deep structure on both stories. The other two are 26% on S51 and 14% (NA512) and 22% (NA520) on S83. All subjects show more transformation to another deep structure on S83, group means are 44.2% and 53.3%.

NA4 shows no intonation miscues on S51 and only 4% on S83. Lisa, NA512, shows 10% on the latter. All involve anticipating a different deep structure; several are corrected.

Example S83 Lisa(NA512):

0601 There was a tall flat rock by the grass ^{black} ^{(I) (C)} where were ^{(I) (C)} where the sheep were, and...

Table 6-21

IDENTICAL FUNCTION SUBSTITUTIONS:

NAVAJO FOURTH GRADE GROUP

Grammatical Function	Noun	Verb	Noun Marker	Verb Marker	Function Words
Story No.					
S51*	86.4	67.6	57.7	80.0	65.6
S83**	70.8	85.7	53.3	46.2	63.4
*S51	<u>Freddie Miller, Scientist</u>				
**S83	<u>Salt Boy</u>				

NA4 shows moderate to high matching function substitutions. (Table 6-21)

Mean peripheral field miscues for NA4 are 11.4%, S51 and 19.8%, S83. All are higher on S83.

Semantic acceptability for NA4 is sharply different from syntactic acceptability. Semantically unacceptable miscues are 45.7% of S51 and 34.2% of S83; 19.6% of S51 miscues and 30.1% of S83 are partially acceptable. Sentence only acceptability shows for 5.5% and 6% of the miscues. Another 7.5% and 4.5% would be acceptable in sentence only except for other miscues. Full acceptability shows for only 5.5 and 9.5%: 15.6 and 16.1% of the miscues would be fully acceptable except for other miscues. As this shows, the greatest shift between S51 and S83 is from unacceptable to partially acceptable miscues.

Navajo Second Grade

Like the HS2 group, these readers could not cope with S44, the standard second grade story. We used S26 and 28 (hereafter referred to as S26) as a single task alternative for S44. They read S68, Henry's Choice, as their culturally relevant story. It has a desert, but not an Indian setting. S68 was also read by AR2 and HS2. Culturally relevant second grade stories are not easy to come by for many cultural groups.

Our NA2 readers are older than most second graders, ranging from 8.11 to 10.0. That's the result of a pattern of late enrollment in school, slow beginnings, and irregular attendance.

Table 6-22

NAVAJO SECOND GRADE GROUP STATISTICS

Subject Number Story Number	504		505		509		510		GROUP MEANS	
	26*	68**	26	68	26	68	26	68	26	68
Total Miscues	45	67	53	69	52	41	71	102	55.25	69.8
Coded Miscues	45	65	53	66	52	41	53	54	50.75	56.5
MPIW	8.32	13.24	9.80	13.07	9.61	7.78	12.10	22.31	9.96	14.1
Dialect Miscues	7	15	7	16	7	13	3	4	6	12
MPIW	1.29	3.05	1.29	3.17	1.29	2.47	0.68	1.65	1.14	2.59
Percent	15.6	23.1	13.2	24.2	13.5	31.7	5.7	7.4	12	21.6
Non-Dialect Miscues	38	50	46	50	45	28	50	50	44.75	44.5
MPIW	7.02	10.18	8.50	9.90	8.32	5.31	11.42	20.66	8.82	11.5
Residual MPIW	2.59	4.89	1.11	2.57	2.59	0.95	4.11	13.64	2.59	5.51
% corrected	26.3	10.0	26.1	24.0	17.8	32.1	36.0	16.0	26.6	20.5
% sem. acceptable	42.1	44.0	71.7	64.0	60.0	60.7	38.0	20.0	53.0	47.2
% sem. unacc. but corr.	21.1	8.0	15.2	10.0	8.9	21.4	26.0	14.0	17.8	13.4
Comprehending percent	63.2	52.0	87.0	74.0	68.9	82.1	64.0	34.0	70.8	60.5
% syn. acceptable	57.9	58.0	76.1	66.0	60.0	64.3	44.0	30.0	59.5	54.6
Proximity means										
graphic	5.84	4.93	4.10	4.63	4.29	4.75	5.30	4.85	4.88	4.79
phonemic	4.82	4.43	3.97	4.46	4.74	5.00	3.80	4.24	4.33	4.53
syntactic	7.82	7.86	6.57	6.45	6.37	6.78	7.18	8.40	6.99	7.37
semantic	7.19	7.36	6.54	7.63	7.52	6.53	6.63	6.10	6.95	6.95

* S26 Two New Hats & S28 The Big Surprise**S68 Henry's Choice

Though all our Navajo subjects read willingly for us, there were some problems with their being willing to attempt texts which appeared difficult. It's possible that these NA2 subjects were capable of reading more difficult material. Their comprehending scores with group means of 60.5% on S68 and 70.8% on S26 suggest that they could. Those are considerably higher than NA4 or NA6 scores.

They result from relatively moderate non-dialect MPHWS 11.5 on S68 and 8.82 on S26. Correction means are 20.5 and 26.6%, higher considerably than NA4. Mean for semantic acceptability is 47.2 and 53%. Gap between semantic and syntactic acceptability is moderate with the latter means 54.6% on S68 and 59.5% on S26.

Graphic and phonemic proximity means are all under 5.0 and similar for the two stories: graphic 4.79 and 4.88, phonemic 4.53 and 4.33. The range is low for the NA2 readers on these variables. S26 phonemic means drop under 4.0 for NA505 and NA510.

The statistics show that S68 is a more difficult task than S26 for all subjects except NA509. The others show higher total MPHWS, coded MPHWS, non-dialect MPHWS, residual MPHWS on S68. They show lower correction and lower comprehending on S68 than on S26. In semantic and syntactic acceptability two subjects, NA504 and NA509, have comparable percentages on the two stories.

Range of residual MPHWS is 1.11 to 4.11 on S26, but it is .95 to 13.64 on S68.

NA505 and NA509 have quite high semantic acceptability and comprehending scores on the two stories, though NA505 is higher on S26 with 87% comprehending and 1.11 residual MPHWS and NA509, Virginia, is higher on S68 with 82.1% and .95 residual MPHWS.

If we examine closely Virginia's success on S68, we see the highest dialect, 31.7%, for the group, though all show more dialect in reading S68 than S26; another 32.1% of Virginia's miscues have been coded dialect doubtful. She also shows 32.1% correction on S68, almost double that on S26. She only produces 28 non-dialect miscues for the whole story.

Her dialect miscues are involved with inflectional suffixes: -ed deletions on verbs asked~~ed~~, helped~~ed~~, liked~~ed~~, laughed~~ed~~; s deletions on verbs: looks; s deletions or insertions on nouns: stores~~s~~, friends~~s~~, hands~~s~~, pets/a pet, dragons~~s~~.

Virginia shows be deletions: that/that's (2) and verb marker deletions: I'll think, I'll find, you'll find. Her miscues include some tense substitutions: likes/liked; had/has (2), write/wrote.

She has repeated a/the substitutions which may be related to her developing control of English noun markers:

0203 to have ^a the dog sit up

0305 Pick out ^a the pet you want.

0702 I thought of ^a the pet I want.

0903 put them in ^a the jar

1405 on ^a the rock

1407 in ^a the box

Other miscues also involve noun markers:

0405 Do you ^c ^{an} want a hamster?

0503 Do you see ^s ^{any} animal you want?

0801 Henry got ^{the} a show box

1408 Then he ran to ^{his} the house.

There are numerous noun markers, however, with no miscues. She produces no possessive 's deletions. In fact, twice when dragon occurs as a noun adjunct, she substitutes possessives:

0803 Dragon's
Dragon House

0904 dragon's
dragon food

She has only one problem that may be language related that appears to involve loss of meaning. Virginia makes these miscues:

0101 Henry didn't have a pet

0401 Henry didn't think he wanted

0606 ^c Do
I don't know yet

0706 Pet stores^{do} don't have

0707 And I^{do} don't know

Notice that the last three examples are corrected.

She also shows some miscues involving dialogue carriers:

0406 "No," ^cHenry said

0502 "No," Henry said

1005 ^cHenry said

She has a grandfather/grandpa substitution which could be considered a dialect preference.

In two cases Virginia has intonation miscues that involve a similar syntactic transformation:

0801 Henry got ^{the} a shoe box and made holes

0802 ^{is} in the lid^{and}

0803 (He) ^{write} wrote Dragon's House on the box.

0901 Next, Henry got a jar and made holes

0902 in the lid^{and}

0903 (He) got some bugs and put them in a jar.

She has two very similar examples in S26.

What Virginia shows here are patterns of miscues involving dialect/first language influences in the context of relatively successful self-monitoring for meaning. She shows many signs of her considerable

control of English, though her background is typical of her peers. Her world is bound by travel no further than local towns off the reservation. She, her numerous siblings and her parents were all born where they live now. One small difference is that with six older siblings, she hears some English at home.

Her retelling is relatively complete in essential sequence, but minimal with the same pattern noted in NA4 of no free retelling and short answers to the researcher's open questions. Here's her retelling with most of the researcher's questions deleted, marked by (Q):

Henry wants a dragon - for a pet. (Q) Henry went to the store with his father. (Q) He made a dragon box. (Q) He went to his grandfather. (Q) He ride on a horse. (Q) Henry found a lizard. (Q) He put it in the box. (Q Why did he go to the store?) To buy an animal. (Q) To take care of. (Q) He wanted to learn about it. (Q Who else was in the story?) His father and his grandfather. (Q Tell me about his father) Took him to the store. (Q) He went around the store. (Q What did he call the box?) Dragon House. (Q Did he actually put a dragon in the box?) Yes. (Q How long would a dragon be?) Long. (Q How long?) This long. (Q Would that fit in a shoe box?) Nods no. (Q So what did he put in the shoe box?) A lizard.

As the interview proceeds, it takes longer and longer sequences of questions to get even minimal answers. Perhaps she's exhausted her knowledge or perhaps she retreats into herself as the procedure of being probed becomes too much for her to handle. The following sequence shows this retreat:

S: He went around the store.

R: He went around the store. Alright. What else did he do? (Pause, no response) Anything? (Pause, no response) How about the grandfather? What can you tell me about him? (pause, no response) Where did he live? (no response) Where did Henry live? (no response) Any idea? (no response) What did you say Henry wrote on the box? (no response) What did he call the box?

S: Dragon House.

Note how the subject's retreat causes the researcher to become more specific and to shape questions that can be answered with minimal answers. After this sequence, the next successful question evokes only "yes".

By contrast, Tommy, NA510, has 13.64 residual MPHWS on S68. He has only 20% semantic acceptability and even with 16% correction his comprehending is only 34% with 30% syntactic acceptability.

His dialect is only 7.4%, but 18% of the miscues are coded dialect doubtful.

Tommy produces a number of miscues that result in syntactic and semantic garbles:

- 0104 (uc) Sent him cats
Susan had a cat.
- 0201 John had a dog that ^{with} could ^{did} tricks.
- 0404 looked at all the animals
- 0703 Isn't thought
It's a dragon
- 0705 A dragon might be ^{hard} to find
- 1103 (e) then ^{helped} ^{grasp} then house
They helped grandpa saddle three horses.

The pattern shown here is one involving several miscues in the same sentence. He does correct, but is more likely to correct when miscues are fewer. That's reflected in 36% correction on S26. Tommy seems also to vacillate between word focus and meaning focus.

His retelling score is higher than Virginia's, but is the result of persistent patient questioning by the researcher. Still it shows that some meaning is being constructed even though the comprehending score shows much loss of meaning.

NA2 has 11.2% unsuccessful corrections on both stories, though all but NA509 have more corrections on S26 than S68.

Tommy attempts correction on 52% of his miscues in S26 and succeeds on 36%. Both are highs for the group.

Forty-three percent of S26 miscues which are partially syntactically acceptable are corrected. Thirty four percent of syntactically unacceptable S26 miscues are corrected. But 19.8% of fully acceptable miscues are corrected. Unsuccessful corrections are highest for syntactically unacceptable miscues, 23.7% partially acceptable miscues, double the overall rate, show 14.3% unsuccessful correction. Only 4.7% of fully acceptable miscues involve unsuccessful corrections.

The pattern for correction and syntactic acceptability is similar in S68. 27.2% of partially acceptable miscues are corrected, 25.6% of unacceptable and 15.7% of fully acceptable. Unsuccessful corrections are 17.9% of unacceptable, 15.9% of partially acceptable and 5.7% of fully acceptable miscues.

Table 6-23

CORRECTION AND SEMANTIC ACCEPTABILITY:

NAVAJO SECOND GRADE GROUP

Story Number	Unacceptable	Partially Acceptable	Acceptable in Sentence Only	Fully Acceptable	Acceptable in Sentence but for Other Miscues	Fully Acceptable but for Other Miscues
S26 :	31.7	44.2	27.8	14.0	50.0	6.3
S68	20.8	25.0	18.8	14.3	33.3	7.7

* S26 Two New Hats & S28 The Big Surprise

**S68 Henry's Choice

Table 6-23 shows the figures for correction and semantic acceptability on the two stories. Again patterns are similar on the two stories, but flatter on S68. Unsuccessful correction is 22 and 17% for semantically unacceptable miscues and 11.6 and 13.6% for partially acceptable ones. They are 5.3 and 4.1% unsuccessful correction of fully acceptable ones.

In S26, 34.5% of nouns, 30% of verbs, and 27.1% of function word miscues are corrected, all a bit above the mean rate. In S68, 22.5% of nouns, 23.1% of noun modifiers, 23.1% of miscues with indeterminant observed response functions, and 28.6% of contractions are corrected.

Only noun modifiers and indeterminants on S68, both with 30.8%, show high rates of unsuccessful correction. With very few miscues on verb modifiers, a total of five on both stories, four involve unsuccessful corrections.

Rates of correction on miscues with no phonemic ER-OR correspondence are high: 35.5 and 34.6%.

In S26, miscues coded 0-3 (low proximity) show 33.5% correction; 4-6 (moderate proximity) show 30%; 7-9 (high proximity) show 20.4%. In S68, 0-3 show 26%, 4-6 have 15.1% correction, and 7-9 show 8.3%. These declining corrections, as proximity gets greater, show some concern among NA2 readers for phonemic accuracy.

The corrections of these NA2 readers are patterned: they reflect tendencies to correct miscues with low syntactic and semantic acceptability and low phonemic proximity.

Only one miscue pattern that appears to involve syntax entails a potential reading comprehension problem for our second grade Navajo readers. We mentioned earlier Virginia's (NA509) miscues involving negation in don't and didn't.

Table 6-24 shows the miscues all NA2 readers make on all negatives in reading S68.

Table 6-24

NAVAJO SECOND GRADERS' RESPONSES TO
NEGATIVES IN HENRY'S CHOICE

Line No.	ER	NA504 OR	NA505 OR	NA509 OR	NA510 OR
0101	didn't	did	did not	did	OK
0102	didn't	did	did	OK	1. did 2. did 3. (c)
0401	didn't	OK	don't	did	did (c)
0406	no	OK	OK	OK	OK
0502	no	OK	OK	OK	OK
0505	no	OK	OK	OK	OK
0604	no	OK	OK	OK	OK
0606	don't	OK	OK	OK	do not
0706	don't	OK	OK	do (c)	do not
0707	don't	OK	do	1. won- 2. do 3. (c)	OK
0804	that's not	OK	OK	OK	that's no (c)
0806	don't	OK	do	OK	do not (c)
Negatives for Positives					
0503	do		don't		
0703	it's				isn't
0905	do		don't		don't
1005	I'm going				(c) I'm no
1006	Do you		1. I don't 2. you do		Do not

All subjects show some miscues on negatives in S68, but only on those involving contractions. There are no miscues on no in four occurrences. Furthermore, in S26, did not occurs three times and do not once. The only miscues are do/did and didn't/did not. It seems clear that the difficulty is with the use of do/did with the n't contraction to show negation. In fact, two subjects show opposite miscues with shifts to negatives. Both produce this miscue:

0905 ^{Don't}
Do dragons eat bugs?

Ironically, in this case the meaning stays the same.

Some of the HS2 subjects who read S68 also, have this same miscue pattern on don't/didn't that the AR2 subjects do not.

This contractional representation of the negative element seems to have a unique combination of syntactic, semantic, morphophonemic, and graphic features interacting. It's worthy of further study. But it is not a simple problem caused by syntactic patterns of negation.

As Table 6-25 shows, the main difference within each story between semantic and syntactic acceptability is in the higher percent of miscues semantically acceptable in the sentence only and lower percent fully acceptable semantically.

In S68 there is also a higher percent semantically unacceptable, 29.8% compared to 21.9% syntactically unacceptable. Figures for the two stories are comparable on most categories also except for higher rates of full syntactic acceptability on S26 than S68, and higher percent of semantically unacceptable on S68, 29.8% compared to 22.9% on S26.

Only NA504 shows high rates of miscues producing no transformation, 31.6% on S26 and 34% on S68. Group means for such miscues are 16.8% on S26 and 21.3% on S68. NA505 shows high percents of alternate option transformations, 17.4% on S26 and 24% on S68. Here are examples of these transformations:

0104 Susan had a cat

0105 Henry liked to play with her cat.

0501 (his) (father) asked.)

0605 (his father) ^{said} asked.)

0707 ^c (And I ...

Table 6-25

DISTRIBUTION OF SYNTACTIC AND SEMANTIC ACCEPTABILITY:

NAVAJO SECOND GRADE GROUP

	Fully Unacceptable		Partial Acceptability		Acceptable only in the Sentence		Fully Acceptable in Total Passage	
	Syntactic	Semantic	Syntactic	Semantic	Syntactic	Semantic	Syntactic	Semantic
S26*	21.2	22.9	19.6	24.1	1.7	10.1	48.0	31.8
S68**	21.9	29.8	24.7	24.7	1.7	9.0	39.3	27.5

	Acceptable in Sentence Except for Other Miscues		Acceptable in Total Passage Except for Other Miscues	
	Syntactic	Semantic	Syntactic	Semantic
S26*	1.7	2.2	7.8	8.9
S68**	.6	1.7	11.8	7.3

* S26 Two New Hats & S28 The Big Surprise**S68 Henry's Choice

These transformations show the reader exercising her option to use alternatives the author could have used.

NA2 subjects show few intonation miscues. NA505 is high on S68 with 10%. Group means are 3.9% and 5.6%.

Table 6-26

IDENTICAL FUNCTION SUBSTITUTIONS:

NAVAJO SECOND GRADE GROUP

Grammatical Function	Noun	Verb	Noun Marker	Verb Marker	Function Words	Contrac- tions
Story No.						
S26*	68.1	82.1	52.9	***	58.8	***
S68**	69.6	76.6	38.5	***	66.7	62.5

* S26 Two New Hats & S28 The Big Surprise

** S68 Henry's Choice

*** Insufficient N

Table 6-26 shows moderate matching function substitutions. The figures are low for noun modifiers. NA2 subjects tend to substitute nouns and function words for them.

NA2 produces few non-words, 1.2% in S26, 5.4% in S68. Only NA510 shows more than 2 in the coded portion on either story. He has 12% on S68. Omissions are 15.8% on S26 and 10.8% on S68. NA509, Virginia, is high on both with 23.4% and 20.7%.

Her omissions show a pattern:

S68

0406 &
1005 Henry said.

0503 any ^{animals} animal

0803 &

0903 He (as reported earlier)

1101 When Henry...

1201 ^(c) Then they

S26
0101 old Mrs. Duck

0308 ^(c) My new hat is at the ^{home} house.

0201 ^(c) of the tree

0309 It is ^{new} in my hat box

0305 ^(c) And on she went

0507 . She laughed

0501 . She looked

The consistent pattern involves omissions of relatively familiar words which are either corrected or part of syntactic and semantic transformations. These are not deliberate omissions of "difficult" words. This young Navajo reader is seeking meaning and not simply naming words.

Peripheral field miscues involve 25.9% on S26 and 16.9% on S68. All but NA505 show higher percent on S26. NA505 has a high of 31.2% on S26 and 32.6% on S68. These differences between the stories and between the subjects suggest that characteristics of both the text and the reader are involved in peripheral field miscues. The reader produces peripheral field miscues through interaction with the text.

Navajo Sixth Grade

NA6 read S81, an excerpt from Sing Down the Moon, in addition to S53, My Brother Is A Genius, the standard story. S81 is a historical novel with Navajo characters and a setting which includes Canyon de Chelly, now a national monument, near the school our subjects attend.

All subjects did somewhat better on S81 than S53. Mean coded MPHW is 12.1 on S81 and 15.0 on S53. Non-dialect MPHW means are 12.6 on S53 and 10.4 on S81. NA6 corrects 19.2% of S53 and 24% of S81. Semantic acceptability is 35.9 and 38.5%. Comprehending percents are 47.5% on S53 and 54% on S81. Syntactic acceptability is 61.6% and 70.5%. Residual MPHW is 6.7 on S53 and 4.7 on S81. Range for residual MPHW is 4.1 to 10.5 on S53 and 3.3 to 6.2 on S81. All subjects have higher comprehending and lower residual MPHW on S81 than S53.

Graphic and phonemic means are a little higher on S81, 5.5 and 5.2, than on S53, 5.3 and 4.7. That reflects mixed patterns with NA525 and NA526 higher on S81, NA523 higher on S53 and NA521 with higher graphic but lower phonemic means on S53.

Table 6-27

NAVAJO SIXTH GRADE GROUP STATISTICS

Subject Number Story Number	521		523		525		526		GROUP MEANS	
	53*	81**	53	81	53	81	53	81	53	81
Total Miscues	415	307	257	216	266	215	272	264	302.5	250.5
Coded Miscues	56	57	60	65	64	61	59	53	59.8	59.0
MPHW	19.6	13.5	12.9	10.6	13.2	11.0	14.4	13.5	15.0	12.1
Dialect Miscues	7	7	10	15	15	11	9	3	10.3	9.0
MPHW	2.5	1.7	2.2	2.4	3.1	2.0	2.2	0.8	2.5	1.7
Percent	12.5	12.3	16.7	23.1	23.4	18.0	15.3	5.7	17.0	14.8
Non-Dialect Miscues	49	50	50	50	49	50	50	50	49.5	50.0
MPHW	17.1	11.8	10.8	8.1	10.1	9.0	12.2	12.7	12.6	10.4
Residual MPHW	10.5	6.2	6.7	4.7	4.1	3.3	5.6	4.8	6.7	4.7
% corrected	20.4	28.0	16.0	14.0	22.4	36.0	18.0	18.0	19.2	24.0
% sem. acceptable	24.5	30.0	30.0	30.0	46.9	48.0	42.0	46.0	35.9	38.5
% sem. unacc. but corr.	14.3	18.0	8.0	12.0	12.2	16.0	12.0	16.0	11.6	15.5
Comprehending percent	38.8	48.0	38.0	42.0	59.2	64.0	54.0	62.0	47.5	54.0
% syn. acceptable	40.8	62.0	68.0	64.0	79.6	76.0	58.0	80.0	61.6	70.5
Proximity means										
graphic	5.3	4.8	6.0	5.7	4.9	5.6	4.8	6.0	5.3	5.5
phonemic	4.3	4.9	5.3	5.1	4.8	5.2	4.5	5.5	4.7	5.2
syntactic	8.4	7.9	7.5	8.2	7.6	7.9	6.9	7.8	7.6	7.9
semantic	7.7	6.0	7.0	6.6	7.3	7.2	7.1	6.5	7.3	6.6

* S53 My Brother Is A Genius**S81 Sing Down The Moon

Dialect percent is 17% for the group on S53 and 14.8% on S81. But an additional 14% on both stories are doubtful dialect and 2% of S53 and 4.5% of S81 involve secondary dialect.

Retelling scores are low on S81, however, 11 to 26, and only NA525 exceeds 26 on S53 with a score of 46. NA526 has the same score, 26, on both stories; all the others have the higher of their retelling scores on S53.

In their retellings, the NA6 group seems even more inhibited than the NA4 or NA2 groups. Perhaps cultural effects get stronger as Navajo students get older.

NA521, with retellings of 11 on S81 and 19 on S53, shows this inhibition. He whispers, speaks in Navajo, and talks to himself. But no response is longer than this sequence shows:

R: Where were they riding besides the cottonwoods?

S: Among the ro-- among the rocks.

R: And where else?

S: Among the trees.

R: Anything else?

S: Woods.

R: What can you tell me about their horses? Do you know what they looked like?

S: No.

R: What kind of horses were they?

S: Brown.

R: Did they just ride them all the time?

S: Yes.

R: Did they ever get off?

S: Yes.

R: What did they do when they got off?

S: Sleep on the ground.

R: I can't hear you.

S: Went to sleep.

R: Then what happened?

S: Then they get up in the morning, when the sun rising.

The retelling is so sparse that it is difficult to tell whether NA521 knows more than he is willing to say.

NA525 and NA526, with over 60% comprehending scores on S81, both have retellings of 26. NA525, with the highest comprehending score on S53, 59.2%, also has the highest retelling score of 46.

Only NA521 shows low syntactic acceptability, 40.8%, on S53 and he has 62% on S81. He has only 2% omissions on S81, but 7.4% on S53. But he shows 26% non-words in S81 and 13% in S53. Many of these non-words are syntactically acceptable. NA6 group shows 18.4% non-words on S53 and 21.8% on S81. Omissions are 15% on S53 and 12.1% on S81. NA525 and NA526 have high omission rates, unusual for sixth graders.

Here are Anita's (NA526) omissions in S53 (28.3%): of*, it*, philosophical^m, and*, courage, ashamed, certain, definitions^m, The, genius^m, valuable*, two, then*, here*, your*, baby*, typical, excellent, said*, ordinary, intellectual*, limply, dashed, soak, society, blare^m, to*, a*, broadly, da*, he*, horizontal, I*, in*, impression, stringy, sleigh, slump.

* corrected

^m repeated omissions

Here's a short sequence with her omissions:

0824 He ^{wiggle}wagged a finger at Andrew ^{and}(and) ^{clay}said, "say da."

0825 "Intellectual," my little brother said, loudly and clearly.

Anita shows both basic types of omissions, those that seem deliberate and those which are incidental to the reading. A number of deliberately omitted words are without any context in the story; they're words read out of a dictionary by the main character in the story or repeated out of context by the eight month old genius.

Word insertions are 5.3% on S53 and 6.8% for S81 and range to 10% for individual readers.

While correction, as reported above, is moderate on both stories, unsuccessful correction is unusually high, 19.7% on S53 and 17% on S81. Attempted correction is 39.4% on S53 and 43% on S81. On S53 the group has more unsuccessful than successful correction with no subject substantially more successful than unsuccessful. In S81, only NA525, with 36% correction and only 12% unsuccessful correction, shows high proportional rate of success.

Table 6-28

SYNTACTIC ACCEPTABILITY:

NAVAJO SIXTH GRADE GROUP

	Unacceptable	Partially Acceptable	Fully Acceptable	Fully Acceptable Except for Other Miscues
S53*	19.2	18.7	41.4	19.7
S81**	12.5	17.0	56.0	14.0

*S53 My Brother Is A Genius**S81 Sing Down the Moon

Table 6-29

SEMANTIC ACCEPTABILITY:

NAVAJO SIXTH GRADE GROUP

	Unaccept- able	Partially Acceptable	Acceptable in Sentence Only	Fully Acceptable	Acceptable in Sentence Except for Other Miscues	Fully Acceptable Except for Other Miscues
S53*	44.4	19.2	1.5	20.2	2.5	12.1
S81**	45.0	16.5	5.5	17.0	4.0	12.0

*S53 My Brother Is A Genius**S81 Sing Down The Moon

NA521, in the same story, attempts to correct 58% but succeeds on only 30%. It looks like this concern for correction reflects a concern for accuracy as much as it does a concern for meaning. These are relatively careful, uptight readers.

Syntactic factors influence their successful correction, but show less influence on the unsuccessful ones. 37.8% of partially acceptable miscues are corrected, but only 15.8% of unacceptable and 15.7% of fully acceptable on S53. For S81, 38.2% of partially acceptable miscues and 36% of unacceptable miscues are corrected, but only 15.2 of fully acceptable are corrected. 32.1% of miscues fully acceptable except for other miscues in the sentence are corrected. Unsuccessful corrections are comparable for all degrees of syntactic acceptability on both stories.

A similar pattern shows an effect of semantic factors on correction in S53. There is disproportionately high correction for partially acceptable, 39.5%, and fully acceptable miscues in unacceptable sentences, 33.3%. But in S81, 30.3% of semantically partially acceptable miscues are corrected and 29.4% of fully acceptable ones are also corrected. In both stories, highest rate of unsuccessful correction for semantically unacceptable miscues is 28.4% on S53 and 26.7% on S81.

Higher than average correction rates show on S53 for miscues where the observed responses are nouns (28.9%), and function words (28.1). By contrast, only 10.3% of verb miscues and 4.2% of noun modifiers are corrected. Unsuccessful correction rates are high for verbs (41.4%), noun modifiers (33.8%), and indeterminants (28.6%). In S81, relatively high correction rates show for verbs (33.3%) and function words (40.5%). Low rates show for nouns (11.3%) and noun modifiers (10.5%). Rates of unsuccessful correction are high on nouns (30.6%) and noun modifiers (31.6%). These patterns show reader correction strategies are used differently in the two stories.

These figures relate to the fact that 26.4% of S53 miscues are nouns, while nouns are 36.7% of S81 miscues. Noun modifiers are 14% of S53 miscues but 8.1% of S81. Other percents in the two stories are more comparable.

Phonemic factors are also reflected in correction rates. Correction of miscues with no phonemic relationship between ER and OR is 36% in S53 and 55.6% in S81. Unsuccessful correction is 0 and 11.1%. Unsuccessful corrections are high on mid-level proximity (coded 4-6) miscues in S81, 39.2%. That shows in S53 also with 32.3% unsuccessful correction of miscues with moderate proximity.

Patterns of syntactic acceptability differ in the two stories as the figures show in Table 6-28.

The higher rate of full acceptability in S53 reflects lower rates of unacceptable and compounded miscues.

Semantic acceptability patterns are virtually the same for both stories. (See Table 6-29)

Table 6-30

IDENTICAL FUNCTION SUBSTITUTIONS:

NAVAJO SIXTH GRADE GROUP

Grammatical Function	Noun	Verb	Noun Marker	Verb Marker	Function Words	Indeter- minant
STORY NO.						
S53*	74.1	67.7	84.0	***	67.7	61.9
S81**	85.3	84.6	88.9	11.1	64.9	***

* S53 My Brother Is A Genius**S81 Sing Down The Moon

***Insignificant frequency

Table 6-31

GRAPHIC AND PHONEMIC PROXIMITY:

NAVAJO SIXTH GRADE GROUP

Story No.	0-3		4-6		7-9	
	Low Proximity Graphic	Phonemic	Moderate Proximity Graphic	Phonemic	High Proximity Graphic	Phonemic
S53*	21.5	28.9	35.8	40.3	42.7	30.8
S81**	21.5	24.6	26.4	33.2	52.1	42.3

*S53 My Brother Is A Genius**S81 Sing Down The Moon

Only minor differences show here with the shifts being mostly among partially acceptable, lower on S81, and miscues acceptable in sentence only, higher in S81. What happens, however, is that the gap between fully syntactically and semantically acceptable is much greater on S81.

Lost deep structures result in 12.6% of S53 miscues and 6.5% of S81. All subjects are higher on S53. Miscues with no transformation are 32.3% on S53 and 41.5% on S81. That reflects somewhat more effective handling of syntax in S81.

NA6 subjects show few intonation miscues, 5.6% on S53, 5% on S81. Range is 2-10% on both stories.

Peripheral field miscues never exceed 19% on either story. Group mean is 16.8% on S53 and 15% on S81.

NA6 shows high rates of matching function of nouns, verbs, and noun modifiers in S53 and moderate rates in S81. Function word substitutions are about the same. Again this confirms the more effective syntactic processing on S81. (See Table 6-30)

Patterns of graphic and phonemic proximity show that the group has fewer medium graphic proximity miscues and more high proximity ones on S81 than S53. Only 21.5% have no or low graphic proximity. (See Table 6-31) Phonemic proximity shows more high proximity miscues and fewer low and medium proximity miscues on S81 than S53. Furthermore, the percent of phonemic proximity on both stories is higher than graphic on low proximity miscues and moderate ones and lower than graphic in high proximity ranges.

Graphic means usually exceed phonemic means for most readers. But it is unusual in our study for means on both to be higher in what appears to be the easier of two tasks.

Conclusion

Our Navajo readers start out most monolingual in their home language of all our groups. They are able to read English at all grades to some extent. Their miscues show their use of the reading process. What stands out most in their performance, which is least effective of all our groups, is the cultural inhibition on their discussion of what they have understood. It would be easy to conclude, as others have, that their reading suffers from linguistic and cultural interference. We would rather conclude that their response to literacy instruction reflects a mismatch between the school, its curriculum, and its values on the one hand, and the culture and life view of the Navajo children on the other.

The limited success in reading of our Navajo subjects, then, is neither cause for limited success in school nor the effect of language and cultural interference, but a symptom of this general mismatch.

CHAPTER VII

RETELLING: PROCESS AND FINDINGS

Immediately following the reading, subjects are asked to retell as much as they can remember about what they have just read. This segment is audio taped in the same manner and for the same purpose as the reading. The retelling is thought of as a two-part process. The first part is the unaided retelling. The purpose of this section is to gain information about the readers' initial understanding of the material without prompting from the researcher. The researcher encourages subjects to continue with the unaided portion of the retelling as long as possible. When the researcher judges that the readers have told as much as they are going to, the information provided by the subjects during the unaided retelling is used to formulate questions for the directed retelling. The questions asked during this directed retelling remain open-ended. The retelling is evaluated by a quantitative score as well as a qualitative description. Statements about characters, character attributes, events and setting are evaluated and comprise the quantitative Surface Retelling Score. Statements about plot, theme, inferences and misconceptions are described qualitatively.

Training Researchers for Retelling

Good retellings require careful training for the research staff. All research assistants are taught 1) to wait patiently and quietly for the subjects' responses; 2) to ask open-ended questions; 3) to respond in a neutral manner to the student's answers; 4) to ask questions at appropriate moments to facilitate and encourage the subjects to expand or clarify statements; 5) to avoid giving subjects information about the story through the questions asked during the directed retelling; and 6) to avoid responding or questioning in a manner which suggests to the subjects that they are incorrect or that the researcher prefers one response rather than another.

Training with the researchers consists of a variety of procedures:

1. Discussion of the statements and purposes of Guide Questions to Aid Retelling (See the Appendix).
2. Evaluation of taped retellings of previously studied subjects by stopping the tape after each statement made by subject and researcher and using the Guide Questions as the major criteria.

3. Practice of the complete retelling procedure on non-research subjects for purposes of self-evaluation.
4. Regular meetings to discuss and evaluate practice retellings. These meetings often result in the rewriting of the Guide Questions.
5. Thorough knowledge of the stories to be used in the research.

Evaluating the Retelling

Miscue Analysis has, from its beginning, departed from traditional post-story directed questioning. Such questioning is convergent and too often focuses on specific knowledge and simple short answers. Traditional directed questions to assess reading comprehension usually provide readers with information about the story. For example, if a researcher asks a subject who has read My Brother Is A Genius, "Why did the boy want to win the contest?", the reader has been furnished with the information that a boy is in the story and that the plot relates to his winning a contest. The reader may not have gained this information from reading. Also, traditional directed questioning can provide organization and focus for the reader which is not what the reader may think is true about the story.

The type of retelling and questioning techniques used in miscue analysis has a variety of purposes:

1. To discover how readers retell information which they have read when the format provided for retelling is open-ended.
2. To correlate other statistical measures of miscue analysis with retelling measures.
3. To build understanding about the relationship between comprehending (what concern the readers show for understanding while reading is going on) and comprehension (what the readers understand after reading has taken place.).

Earlier miscue analysis research has scored all aspects of the retelling. Through reliability studies of researchers, it became evident that researchers easily agreed on surface retelling information. (The surface retelling information are the statements about the story which can be verified by the language of the story itself.) When each retelling was scored independently by three researchers, the surface retelling score ranged within three points on a 0 - 100 scale, 98% of

the time. However, scores for information dealing with plot, themes or other inferential information and misconceptions were not equally reliable. Therefore, for the purpose of this study, the surface information was quantitatively scored and the statements of plot, theme, inferences and misconceptions were collected for comparative analysis and discussion, but not for quantitative scoring. This procedure discriminates the readers' ability to recall surface information from their abilities to interpret beyond the literal level of comprehension. In addition, subjects' misconceptions are analyzed descriptively rather than through numerical scores. It may be possible that through further studies, some quantitative scores can be developed in these areas.

Limitations

Some of the limitations of the retelling procedures in miscue analysis relate to both the subject and the researcher. The degree to which subjects are willing to express all they have understood or remembered will affect the retelling score as well as the information derived from the directed retelling. Certain subjects, because of cultural differences, may be more willing to expand on what they have read and to share what they have read with a researcher than others. Furthermore, some individuals may be more willing than others to relate ideas from a story whether or not they know it, because some individuals are greater risk-takers than others. The ability of the researcher to ask questions appropriately is extremely important. Researchers who were better questioners and more supporting of the subjects usually elicited more information than other researchers.

This procedure, however, still provides a great deal more about the readers' understandings than traditional comprehension measures. It has provided information about comprehension which might otherwise not be available for further research, hypothesis testing, or for the development of a theory about comprehension in reading. The retelling provides information about the reader's ability to interrelate knowledge, to interpret, to draw conclusions and to develop concepts or misconceptions. Although the retelling score is imperfect, it adds to the picture of the subject's development of efficient and effective reading strategies. The work being done in discourse analysis on retellings adds justification to our procedure and may provide new and better ways of quantifying retellings (Kintsch, 1974; Fredrickson, 1973).

A guide sheet for Preparing and Evaluating Retelling is provided in the Appendix.

The Story Outline

Each story in the research is read carefully by at least two researchers. They develop an outline which is used as a check sheet by the researcher during the actual retelling session and later as a guide to score the retelling information. The first section of the story outline divides 35 points between character recall and development. Each character is listed as recall and the characters' traits as development. Since primary grade stories do not provide much information about character traits, more points are assigned to character recall than character development. The significance of each character to the story is weighted and points are assigned accordingly. Fifty-five points are assigned to all the events in the story, and the events are weighted according to the significance in the story. Ten additional points are provided for any other details in the story which are not listed in character analysis or events. Usually this relates to setting or other surface information not an integral part of the plot of the story. Plot and theme statements are also developed. Readers need not relate the plot or theme suggested by the researcher, but this is provided as a guideline for collecting information about plot and theme statements.

Here is the point distribution for the story outline followed by an example of one of the stories with the points assigned.

Story Outline Point Distribution

Character recall (list characters)	15 or 20
Character development (descriptive statements)	15 or 20

Thirty-five points are distributed between character recall and character attributes. The number of points assigned to each category is dependent upon the number of characters in the story and the extent to which the author develops the characters.

Events	55
Extra Information (Setting and other surface subtleties)	10

Story Outline

Freddie Miller, Scientist - #51

CHARACTER ANALYSIS

Recall 15
 Freddie "Tinker"
 Elizabeth
 Mrs. Miller
 Mr. Miller
 Uncles

Character Development 20
 Freddie

always experimenting
 nicknamed "Tinker"
 his experiments get him into frequent trouble
 dreams of making great scientific discoveries
 tries to be helpful

Elizabeth
 younger than Freddie

Mrs. Miller
 from Switzerland
 has four brothers
 sometimes gets upset at Freddie's constant experimenting

Mr. Miller

EVENTS 55

Freddie turns his sister's doll green in a chemical experiment,
 and his mother tells him to save half of each week's allowance
 to buy a new doll.

Freddie then limits his experiments to those suggested in a
 library book.

Deciding to save a queer smelling mixture in the refrigerator,
 he gets in trouble again and must clean out the refrigerator.

Hears his father complain about the alarm clock not working and
 decides to fix it as a surprise.

The alarm goes off in the middle of the night and another
 one of Freddie's experiments fails.

One day, while Mrs. Miller is out visiting and Freddie is in the cellar making an electric bell, Elizabeth gets locked in the closet.

Freddie is unable to get the door open and says he will go get mother.

However, his sister is afraid to be left alone in the dark.

Freddie then gets the idea of dropping a light through the transom before going for mother.

Freddie makes a flashlight out of two batteries, a ruler, wire, a bulb and tape.

Hanging the flashlight from a piece of string, he uses a step ladder to drop the light in to Elizabeth.

Elizabeth is no longer so scared and Freddie goes to get mother.

When father comes home everyone tells him the story. The whole family is proud of Freddie and decides to be more understanding about those experiments that fail. Mother says Freddie is just like father.

EXTRA INFORMATION

Factual information

5

How to make a flashlight

Subtleties

5

No matter what Freddie does, his mother compares him to one of his uncles, but Freddie does not like these comparisons; he would prefer being compared to his father.

THEME

It sometimes takes a series of failures to produce a success

PLOT

Will Freddie be able to use his scientific knowledge to help his sister?

Selecting Culturally Relevant Materials

In the discussion which follows, it becomes evident that the type of story used has an effect on the retellings, especially of certain populations. Each subject read two stories. One is called the standard story and was read by subjects in previous miscue studies. Since specific populations are used in this study, a second story was chosen which more closely represents the cultural background of the particular population. These are called the culturally relevant stories. The procedure used to select the culturally relevant stories may be helpful in understanding some of the conclusions which are related to the use of culturally relevant materials with specific populations.

Researchers familiar with children's literature with teaching experience enabling them to anticipate children's responses to literature, searched the field of children's literature for the necessary stories. They worked with university, public and school librarians in deciding which books to review.

For some of the populations there are many books available. More than 200 books or stories are available for review about each of the groups representing children who come from Appalachia, who speak Spanish or are in a Spanish speaking environment, or who are Black.

Many of the Appalachian books, however, were written prior to 1970, while books about Black and Spanish speaking Americans reflect the pressure to publish books about minority groups in America, and so most publication dates were post 1970. However, as might be expected, the majority of the newly published books had settings in big city barrios and ghettos and did not reflect the rural nature of the subjects to be used in this study. The lists for all the other groups were very short. We only collected eighteen titles dealing with Arabic background. Not one of these books dealt with Arabic immigrants to the United States post 1965. There was only one book, Ah See and the Spooky House, that dealt with modern, racially mixed Hawaii. Except for Ah See and the Spooky House, finding any culturally relevant books for our specific populations of second graders became almost impossible and we had to make all kinds of concessions to criteria and ended up using some stories which were only remotely culturally relevant. A good example was the use of Henry's Choice for the Hawaiian Samoan second graders where the only relevant aspect was the age of the main character and his activities involving interaction with nature.

Even for the groups about whom many books have been written, selecting appropriate material was not easy.

The researchers immediately discarded books which gave the impression that the story characters were remote, peculiar or undignified.

Many books fall into this category. As if some authors never intend their readers to include the group they are writing about, they begin . . . "In far off Arizona there live. . . ." or mention in passing, "I'd read about the people in Maine and I had an idea they'd be real characters, comical and sort of quaint." Racism in children's books has been well documented in many other publications so we won't dwell on it here. Suffice to say that any books which the researchers thought would be offensive to the readers were eliminated.

We also discarded stories which we thought the intended readers might already know. This ruled out common folk tales. With certain groups, this eliminated some of the remaining choices such as the Maui and Pele stories of the Hawaiians and Samoans, the stories from the Arabian Nights of the Arabs and all the coyote and other significant animal stories of the Navajos. The researchers discarded such famous stories to insure that the readers' understanding of the story was not from previous contact with the story.

Of the remaining stories considered culturally relevant, the researchers selected those which also fit the general criteria for selection of reading material (see Appendix). Often by this point there were only two or three books available for the fourth and sixth grade groups, and as mentioned earlier the researchers were hard-pressed to come up with appropriate stories for second graders. The researchers then conducted pilot studies with the stories with local readers of the proposed grade level. While these readers weren't members of the eight subject groups, their readings did provide the researchers with information about age level suitability. Returning again to the quality of cultural relevance, we checked with members of the particular groups and people knowledgeable of these groups. Even with this checking, certain features which are actually incompatible with the cultures slipped through. After selecting and using Mr. Moonlight and Omar, we found that it is a cultural affront to Arabs to have a story with a camel named Omar, as Omar is the name of an important Muslim caliph and therefore, inappropriate for an animal's name.

Another source of culturally relevant stories, full length children's novels, also presented problems which didn't become evident until after we had gathered our data. In order to assure that the material was short enough to fit into the appropriate reading time, only a chapter or an adapted section from the whole novel was used. After using such stories, we discovered that some of the misconceptions or misunderstandings which readers develop are caused by lack of original redundancy which had been removed in the process of trying to shorten or simplify the reading material.

A frequent misunderstanding was the confusion and sometimes collapsing of characters with each other. For example, in the full book Caleb and Me, four characters are introduced over a period of time and through a number of chapters. The subjects in this study had to deal

with all of them, introduced at one time in Roughing It, a single chapter in the original. This caused many readers to confuse the characters with each other or to forget about one of them altogether. Thus, while the literary quality of full length books is valued, condensation presents problems to readers. This was an unfortunate discovery because often novels for children are the most interesting and appropriate reading material available. The chapters from Sing Down the Moon and Sancho were condensed by our researchers. Other condensations were used as they were found in their condensed forms in basal readers or literature texts.

Regardless of our careful selective process, it was only after we analyzed the subject's reading of the material and their retellings that we acquired full insights into the cultural relevance and significance of the stories we had finally chosen.

Thirteen of the stories used in the study were taken from Basal Readers even though the majority of these thirteen were condensed or adapted from author written as opposed to publishing house written materials. The reason so many of the stories that we finally selected to use came from basal readers may reflect the pressures that publishing houses are under at the present time to include written material which is not offensive to populations for which they are intended and which reflects a variety of written material for young readers.

Aspects of Cultural Relevance

There are many aspects of life's experiences to take into consideration when determining cultural relevance. There are daily activities which describe the social-economic institutions of a group such as their occupational roles, housing patterns, and family relationships among others. These are revealed by the actions of the characters in the story. In Ghost of the Lagoon, read by both Hawaiian groups, the mother is weaving pandanus mats, the grandfather tells stories and it is obvious that many of the men are involved in fishing. Sing Down the Moon and Salt Boy both present information about the agricultural life of the Navajos and focus on some of the sheepherding customs of this group. Sancho and And Now Miguel describe aspects of ranch life and concern for animals prevalent in Southwest Texas.

Setting is another aspect of relevance. All the stories for the Maine subject have events which relate to the sea or the bay. In Two Against the Sea and Andre's Secret, conflicts develop between story characters and bodies of water. Fareedah's Carpet and Mr. Moonlight and Omar are set in the Middle East using camels to help establish the setting. Time also needs to be taken into consideration. Of the twenty culturally relevant stories chosen for this study, twelve are related to modern times. Old Ben Bailey is a folkey humorous story which could take place any time. Clever Turtle is a folk tale, but the rural African dress of the townsfolk in the pictures provide a faraway and/or long ago view for young readers. The other stories are remote in time

from the subjects. For example, reading about the life of Hawaiians during the days of tribal life in the Polynesian Islands is probably no more relevant to the Hawaiian subjects than reading about George Washington's boyhood days is to the life of any American child. Both Royal Race and Ghost of the Lagoon deal with this period of time. These may be less relevant to the Hawaiian Pidgin speakers than to the Hawaiian Samoan group since the Pidgin speakers represent a variety of Chinese, Japanese and Filipino immigrants to the Hawaiian Islands who have no aspect of the Hawaiian culture in their ethnic origins.

Although the Standard Stories used in the study did not represent the aspects of the life of a specific cultural group, they also need to be thought of in terms of cultural relevance because often the activities found in these stories are universally relevant to all readers in elementary school. In My Brother Is A Genius, the hero of the story is concerned about a project he must complete for school. In The Big Surprise, the circus is coming to town.

The age and sex of the characters in the stories are also significant to relevance for readers. Except for Sancho and Clever Turtle, all the other culturally relevant stories include a person as a main character who could be near the age of the subjects. Sancho is a mischievous calf and Clever Turtle is a turtle who outwits the local townsfolk. All the standard stories except for Two New Hats included children in the story who were of a similar age to the subjects.

Not surprising to women's groups critical of the role of females in children's literature is the fact that of the twenty culturally relevant stories finally selected, only four have females as main characters. Fareedah, in Fareedah's Carpet, however, must learn her lessons from a camel. In addition to these four, Sancho includes an adult Mexican woman "known throughout the ranch country as one who had a way with animals" (p. 2), who exerts a positive and significant force in the story.

None of the standard stories had female main characters unless you include Old Mrs. Duck in Two New Hats and Kitten Jones who is referred to as she.

The structure of the written language can also be a factor in establishing relevance in a story. A number of Appalachian subjects knew the stories they were reading "could happen around here because they (characters in the story) talked country". All the culturally relevant stories for the Appalachian groups and two of the stories for the Mississippi rural Black group contain various forms of graphic, vocabulary and linguistic differences to simulate regional dialect. "You'll likely get a whipping for that," says Old Ben to Lester as he agrees to keep Lester's dog. "Mighty much obliged" replies Lester (p. 2). Not only does dialect representation occur in character's dialogue

but as the author of Old Ben Bailey Meets His Match tells the reading audience about Lester's concerns, he writes "this thought was a constant worriment to him." (p. 3) Some authors as they write about people who do not speak English, try to affect a second language through unique English structures. Both And Now Miguel and Salt Boy have aspects of such language simulation. An example from Salt Boy follows: "When they came to the pen for Salt Boy's mother's sheep, his father stopped and waited until Salt Boy was beside him. Then he spoke, 'I have said it before, my son, that you must never rope the sheep of your mother.'" (p. 2) The rest of the stories, including all the standard ones, were written in various styles of standard English.

Stories have general themes which often are relevant to different groups of readers for different reasons. The stories finally selected for use in this research can be divided into four different themes: contemporary realism, folk, coming of age, and historical fiction. Four stories had folk themes which were to teach the readers a lesson. Young readers often miss the point of such stories although as readers mature, they seem to become more aware of the author's purpose in presenting a moral in a story. Clever Turtle and Old Ben Bailey Meets His Match dealt with tricks being played and the less powerful winning out over the more powerful. Mr. Moonlight and Omar and Fareedah's Carpet are concerned with hard work and cooperation, while Sweet Patootie Doll suggests that what is meant to be must be. In addition to the folksy character of some stories, five stories were concerned with the main character's "coming of age." In each case the conflict was solved to some degree as the young hero (in each case the main character was a boy) overcomes various forces to prove his maturity. Sing Down the Moon is historical fiction and the other nine stories deal with various aspects of contemporary realism. Most of the standard stories were contemporary also. Two New Hats had a somewhat folksy character, while Freddie Miller, Scientist included aspects of "coming of age."

A chart follows which lists the aspects of relevance in relation to each of the twenty culturally relevant stories as well as the standard stories. This is not meant to be evaluative in any way. Some of the aspects were presented much better than others and at the present time, there is no way of measuring which of these aspects are most important to readers, nor how the interrelationship of these factors in a story relate to readers. The purpose is simply to list what was evident in each story.

Table 7-1

ASPECTS OF RELEVANCE IN STORIES

Culturally Relevant Stories

Story No.	Story Name	Social Cultural	Setting Place	Time	Age/Sex of Main Charac.	Language	Theme	Type of Material
68	Henry's Choice 2nd gr. NA, HS, AR*	father-son rel. caring for pet ranch life	S.W. U.S.	now	6-8 M	standard	contemp. realism	basal
83	Salt Boy 4th gr. NA*	family rel. sheepherding	S.W. U.S.	now	8-12 M	language simula- tion	coming of age	story book
81	Sing Down The Moon 6th gr. NA*	peer rel. homemaking sheepherding	S.W. U.S.	hist. fic.	12-15 F	standard	hist. fic.	novel
69	The Royal Race 4th gr. HS, HP*	father-sons rel. king's court sled racing	moun- tains islands	long ago	10-15 M	standard	coming of age	basal
70	Ghost of the Lagoon 6th gr. HS, HP*	tribal life rel. storytelling fishing homemaking	South Pacific Islands	long ago	7-9 M	standard	coming of age	basal
87.	Mr. Moonlight and Omar 4th gr. AR*	father-son rel. farming market days	Rural Morocco	not clear	9-12 M	standard	folk	story book
88	Fareedah's Carpet 6th gr. AR*	mother-dtr. rel. grain making weaving	Tigris River Mid. East	long ago	10-12 F	standard	folk	book of short stories
86	My Name Is Miguel 2nd gr. TS*	father-son rel. school and home-life	school home	now	7-9 M	standard	contemp. realism	basal
85	Sancho 4th gr. TS*	ranch life homemaking	South Texas	now	male calf/ older woman	standard	contemp. realism	story book
77	And Now Miguel 6th gr. TS*	family rel. sheepherding	New Mexico	now	10-14 M	language simula- tion	coming of age	basal

*read by

Table 7-1 (cont)
Culturally Relevant Stories (cont)

Story No.	Story Name	Social Cultural	Setting Place	Time	Age/Sex of Main Charac.	Language	Theme	Type of Material
82	Sky Dog 2nd gr. DE*	mother-child rel.	North-eastern	now	5-7 M	standard	contemp. realism	story book
49	Andre's Secret 4th gr. DE*	housekeeping fishing chopping wood	N.E. woods and bay	now	9-12 M	standard	contemp. realism	basal
84	Two Against the Sea 6th gr. DE*	fishing coll. driftwood	Maine	now	10-12 F	standard	contemp. realism	basal
75	The Sweet Patootie Doll 2nd gr. AP*	woods' animals root cellars	rural Appalachia	not clear	7-9 F	dialect	folk	story book
74	Old Ben Bailey Meets His Match 4th gr. AP*	trickstering keeping fox-hounds humor	rural Tennessee	not clear	9-12 M	dialect	folk	basal
76	Cat Fight 6th gr. AP*	fishing hunting shopkeeping	rural Appalachia	now	10-12 M	dialect	coming of age	basal
71	Clever Turtle 2nd gr. MB*	tricking farming tribal life	rural Africa	long ago	no age turtle	standard	folk	basal
72	Little Brown Hen 4th gr. MB*	family rel. farming fishing	rural farm	now	8-10 M	dialect	contemp. realism	basal
73	Roughing It 6th gr. MB*	peer rel. camping fishing	rural river marsh	now	10-12 M	dialect	contemp. realism	basal
67	Ah See and The Spooky House 2nd gr. HP*	Chinese New Year multi-racial	Hawaii	now	7-9 M	standard	contemp. realism	basal

* read by

Table 7-1 (cont.)

ASPECTS OF RELEVANCE IN STORIES

Standard Stories

Story No.	Story Name	Social Cultural	Setting Place	Time	Age/Sex of main Charac.	Language	Theme	Type of Material
26	Two New Hats 2nd gr. NA, HS*	walking meeting	farm	not clear	no age duck/ female	standard	folk	basal
28	Big Surprise 2nd gr. NA, HS*	circus coming to town	park	now	6-8 M	standard	contemp. realism	basal
44	Kitten Jones 2nd gr. All except NA, HS	family rel. contest pets	house yard store	now	7-9 kitten female	standard	contemp. realism	basal
51	Freddie Miller, Scientist 4th gr. All	family rel. scientific experiments	house	now	9-12 M	standard	coming of age	basal
53	My Brother Is A Genius 6th gr. All	family rel. school activ. television activ.	house school TV sta.	now	9-12 M	standard	contemp. realism	basal

*read by

General Findings Suggested by the Selection of Materials

1. Readability formulas are only helpful if the reader's reaction to the book is built into the process of determining readability. A great deal is discovered about the difficulty or ease with which subjects of a particular age or cultural group respond to a book after children from the group have read that story orally and their miscues have been analyzed.
2. Regardless of the ethnic group, when a search is made for short stories which relate to the specific group, there is no long list of acceptable books available. Publishers may be reluctant to publish books which present what they may believe represent too narrow or parochial a view, whether it is true or not. It may be that state departments of education or even county or local school districts could establish regional writing workshops or contests specifically to develop locally written material for children relevant to a particular area or group. This may do much to encourage writers of some people in a particular community while increasing opportunity for culturally relevant reading.
3. There is very little culturally relevant material for children in early grades. Generally, we found it most difficult to find relevant reading material for the second grade group.
4. There are very few books which seem to be relevant to a group in terms of all the aspects of cultural relevance. Although some books may represent the present time, the social-cultural aspects of the story may be limited. Other books may have social-cultural aspects which are significant, but represent a period which to the readers creates a "once upon a time" story. Many authors do not use the written language of the material to help convey to the reader, the particular group the story is about. The standard stories use the written language to convey cultural relevance to a much lesser degree than the culturally relevant stories.
5. Although not specifically related to selection of materials, it is important to keep in mind that readers may initially react to culturally relevant materials with surprise. Children's reading experience may cause them not to expect relevance. A number of readers had difficulty with Spanish names or the names of cities which they probably knew because they have had so little experience reading about themselves that they did not expect to find familiar proper names, vocabulary items and language structures in a reading book in school.

In conclusion, although there has been a large increase in the amount of materials published for children, there is still a dearth of material for specific ethnic groups which also relates to the times, age level and present background of a young reader. If relevant material is necessary to motivate readers, the publishing and educational establishments have a long way to go to fill this need.

Findings From Retelling

Retelling Scores

Examination of the quantitative data from the Retelling Scores provides ten important conclusions concerning comprehension about the eight populations in this study.

1. Retelling Score means for all of the four dialect groups are higher for each grade level group and each type of story than for those of the second language group. (see Table 7-2)

Table 7-2

RETELLING SCORE MEANS PER GROUP/PER STORY

Dialect/ Second Language	Type of Story	Grade	Retelling Mean	Grade Level Mean/Each Group	Overall Grade Level Mean
Sec. Lang	Stand.	2nd	44	43	44
Sec. Lang.	Cul. Rel.	2nd	42		
Dialect	Stand.	2nd	45	45	
Dialect	Cul. Rel.	2nd	47		
Sec. Lang.	Stand.	4th	43	46	49
Sec. Lang.	Cult. Rel.	4th	49		
Dialect	Stand.	4th	54	53	
Dialect	Cul. Rel.	4th	51		
Sec. Lang.	Stand.	6th	43	45	51
Sec. Lang.	Cul. Rel.	6th	48		
Dialect	Stand.	6th	53	56	
Dialect	Cul. Rel	6th	60		

There is less difference between the means of the two second grade groups (dialect and second language) than between the fourth grade groups and sixth grade groups. The mean for all second grade second language subjects on both stories is 43, while for all second grade dialect subjects it is 45. This difference is only 2 points while the difference between the same fourth and sixth grade groups are 7 and 11 points respectively. Taken as a whole, the dialect groups seem to have more surface information to recount than the second language subjects do.

There are exceptions to this, however, which are evident when the mean scores for each population and each type of story are listed separately.

Table 7-3

RETELLING SCORE MEANS PER POPULATION/PER STORY

POPULATION	STANDARD			CULTURALLY RELEVANT		
	2nd	4th	6th	2nd	4th	6th
<u>Second Language</u>						
NA	43*	31	28	37@	50	20
HS	47*	49	39	46@	41@	53@
AR	39	44	51	40@	47	58
TS	48	49	52	45	59	61
<u>Dialect</u>						
DE	55	49	57	60	61	64
AP	40	61	59	45	60	70
MB	43	55	65	38	57	64
HP	40	51	30	43	26@	41@

* Standard story read different from other second graders, but the same for these two populations.

@ Culturally relevant story, the same read by more than one group at the same grade level.

On the Standard Stories read by the second graders, the Navajo and Hawaiian Samoan mean retelling scores are within the same range as the dialect groups. It must be remembered that these two groups read primer stories as compared with Kitten Jones, a 3-1 basal which was read by all other second grade groups. Also, the Culturally Relevant story, Henry's Choice, was from a first level basal, while all other stories came from materials which would be considered more difficult by any readability formula. The Texas Spanish second graders had a higher mean score on the standard story than either the Appalachian White or Mississippi Rural Black groups. (This will be explored more fully later in this section.)

The high mean scores of the Downeast Maine and Texas Spanish groups must be tempered with the facts that in some cases third grade average readers were used because these groups were taped early in the school year. For the same reason, a good number of the HS subjects were fifth graders in the fourth grade group.

Although important information is generated by the examination of mean scores, often significant information is lost, especially when the number of subjects being compared is small. It is equally significant to look at the range of scores to see if this explains some of the exceptions to trends or conclusions suggested by the mean retelling scores. Figures 7-1, 7-2 and 7-3 present the range of scores of each subject for each grade level, each population and each type of story. The vertical line represents the range for each group and each type of story. Each subject is represented by a dot, and the short line across the vertical line indicates the mean score. 3

Examination of the range of scores for the second grade groups show that a second reason for the high mean score for the DE subjects can be accounted for by one second grade subject's retelling of Kitten Jones. This subject produced a retelling score of 76, while the other three DE retelling scores are 46, 49 and 52, which are within the range of other second grade groups. While examining mean retelling scores, it is important to keep in mind that the variation is as great within the group itself as it is between groups. As we examine other trends noted from the retelling scores, we will continue to look at the ranges as well as the mean scores.

Figure 7-1

7-19

Range of Retelling Scores
For Subjects: Second Grade

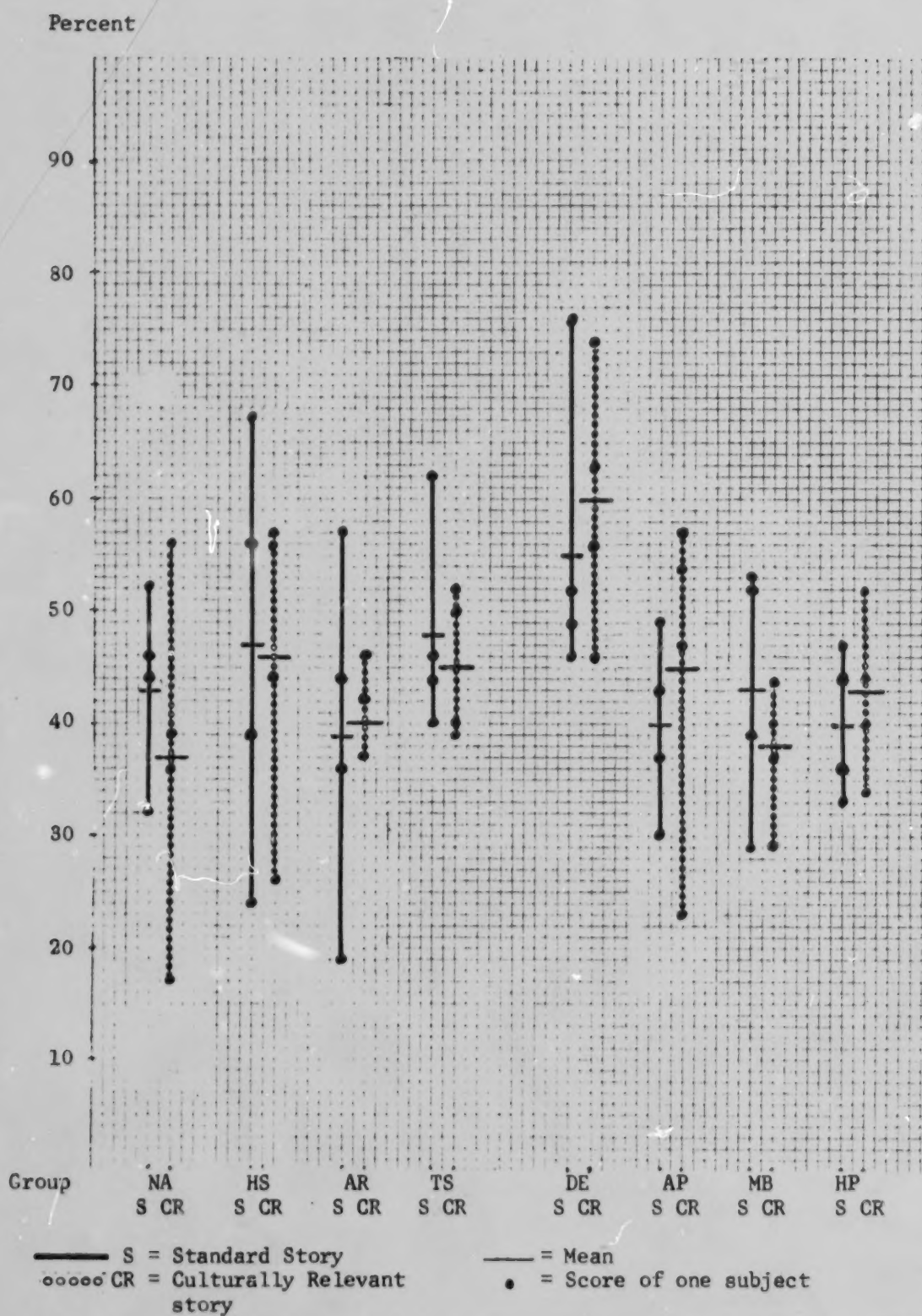


Figure 7-2

7-20

Range of Retelling Scores
For Subjects: Fourth Grade

Percent

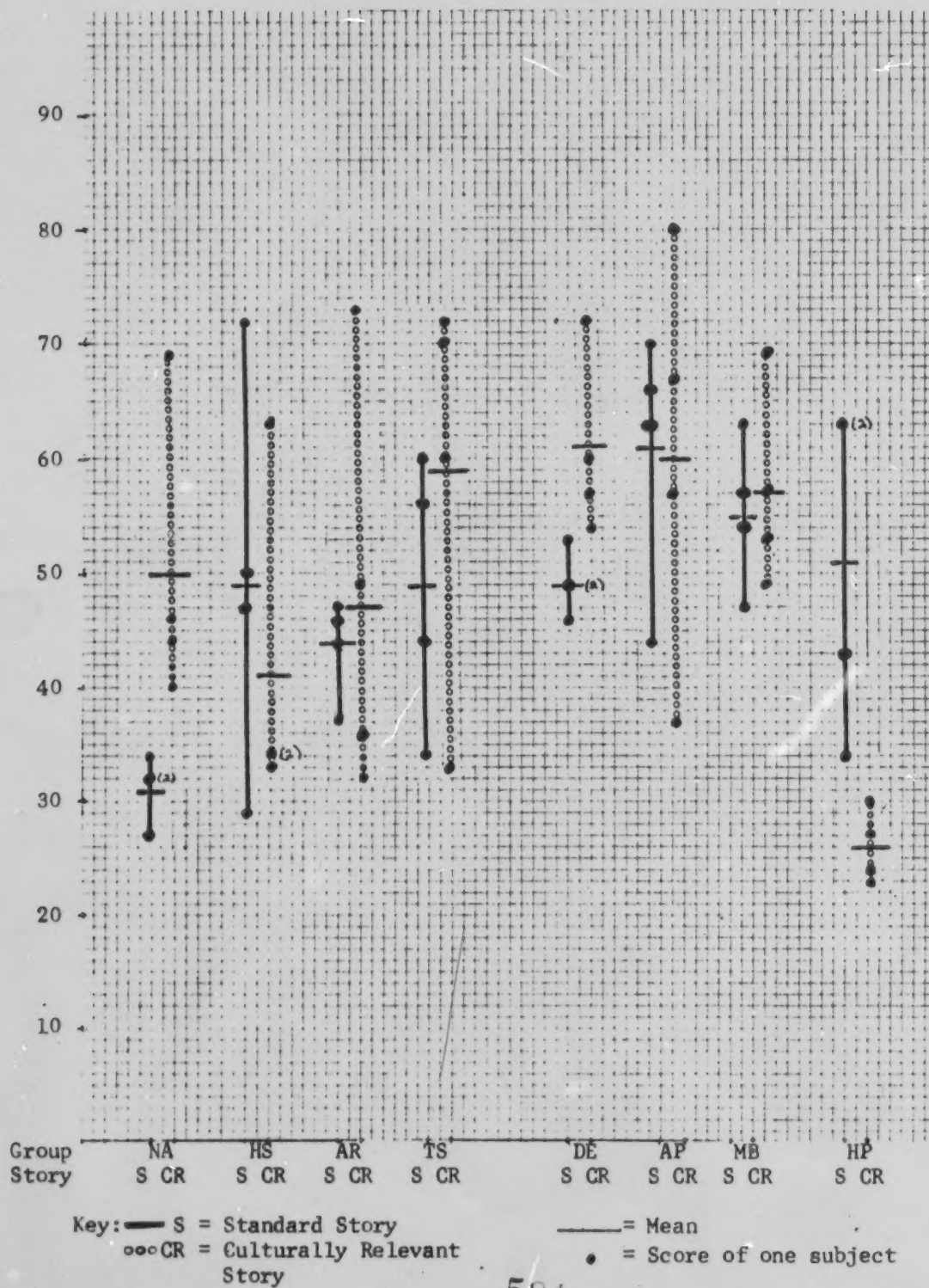


Figure 7-3

7-21

Range of Retelling Scores
For Subjects: Sixth Grade

Percent

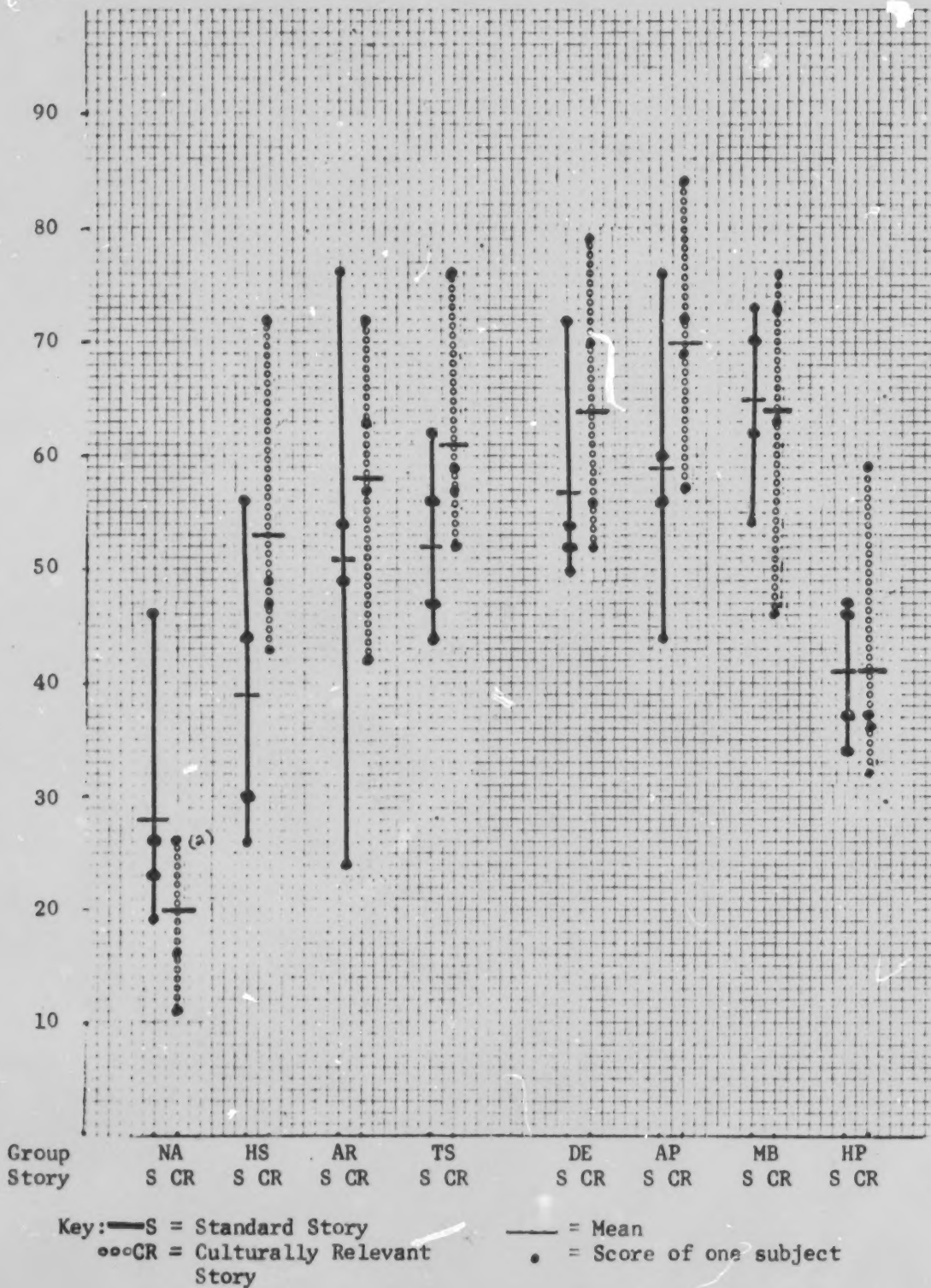
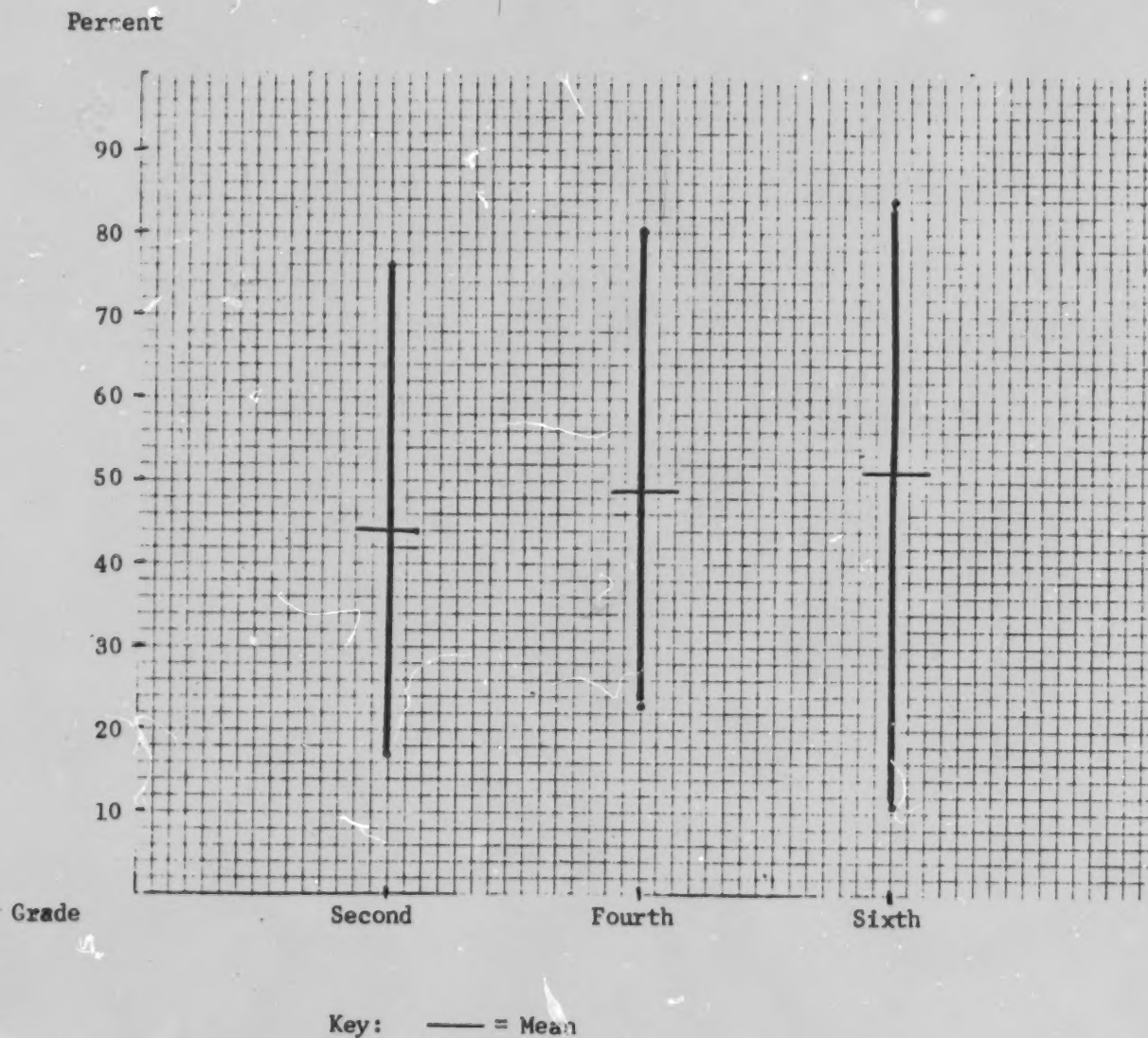


Figure 7-4

Range and Mean of All Subjects
For Each Grade



2. Retelling score means tend to increase from second grade to fourth grade to sixth grade groups. This is true for the overall groups, (Figure 7-4) as the second grade mean is shown as 44, the fourth grade mean as 49, and the sixth grade mean as 51. This trend is even more apparent when other aspects of mean scores are looked at from grade level to grade level. Table 7-2 shows an increase from second to sixth grade dialect groups (45, 53, 56) which is greater than that for the second language group (43, 46, 45). In fact, the sixth grade, second language group mean decreases one point from the fourth grade. This decrease is mainly affected by the NA group (see Table 7-2). In the NA group the mean retelling scores decrease from one grade level to the next for the standard stories, and although for the culturally relevant story the fourth graders increase from the second grade group (from 37 to 50), the sixth grade NA subjects produce the lowest retelling mean score of any population for any story. (This will be discussed later.)

There are other exceptions to the increase of retelling score means from the lowest to the highest grade levels, but none are as dramatic as for the NA group. The HS subjects group from the second to the fourth grade on the standard stories (it must be remembered that this shows a difference between the reading of a primer story by second graders and the reading of a fifth grade story by fourth graders) but decrease from 49 to 39 from the fourth to the sixth grade. However, on the culturally relevant story, these same sixth graders did better (53) according to mean retelling scores than the fourth graders (41) on their culturally relevant story. The Hawaiian Pidgin group also represents a pattern similar to that of the HS group on the standard story decreasing from the fourth to the sixth grade from 51 to 30, but increasing from the fourth to the sixth grade on the culturally relevant story (26 to 41). Each fourth grade group and each sixth grade group of HS and HP subjects read the same culturally relevant story. However, for the HP group, the retelling score mean for the sixth grade on the culturally relevant story is still lower (41) than the retelling score mean for the second grade HP readers (43). These results may be a function of the kinds of students selected for the study as well as the kinds of stories used for these particular groups. (This will be discussed later.)

The AP group decreases from the fourth grade to the sixth grade on the standard story by two points on the retelling score mean. This may be related to the unusually high mean retelling score received by the AP fourth grade group. This was six points higher than the second highest fourth grade score on the standard story.

The DE fourth grade group also does not fit the pattern of grade level increases for the standard story. This may have been related to the fact that the researchers for the DE subjects had the shortest time for training and had the least amount of prior experience with retelling prior to the data collection. For the HS, AP and DE groups, however, the general trend shows an overall increase in retelling scores for subjects in higher grades.

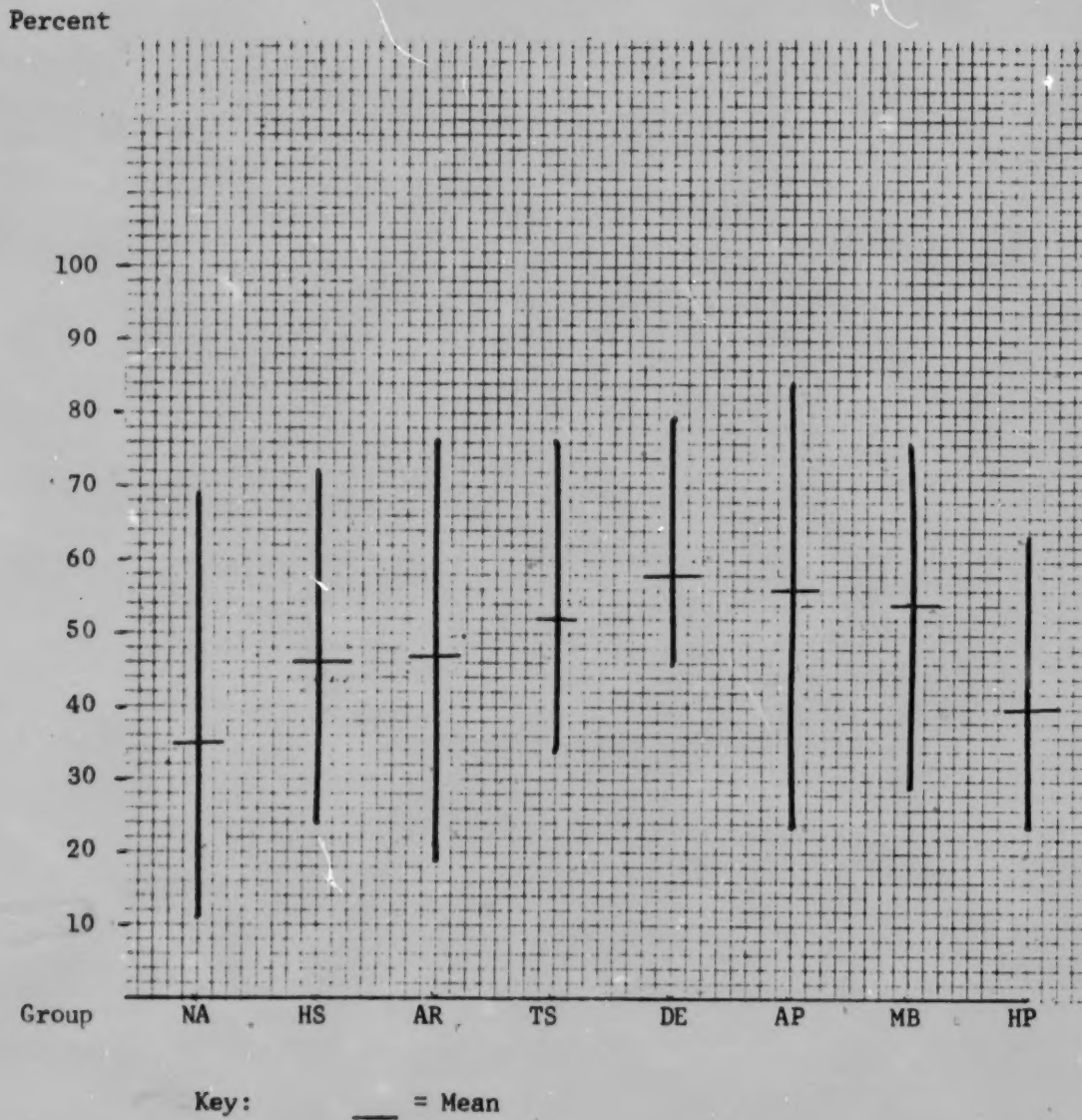
3. The Texas Spanish subjects tend to look more like the subjects whose first language is a dialect of English rather than like other second language groups. Total retelling score means for each group (Fig. 7-5) show that all the dialect groups except for the HP group had a total retelling score mean of over 50, while all the second language groups had retelling score means of under 50 except for the TS group. All the evidence collected from the retelling score means indicates that the TS group responds to retelling in a similar way to the dialect groups with the exception of the HP subjects. For the standard stories, the TS subjects have scores close to the AP, DE and MB groups. The mean retelling scores of the TS group for each grade level and for each type of story is always more than 45 (Table 7-2). The examination of the charts which show the range of retelling for all subjects also indicates that the TS subjects' ranges are more like the dialect groups than other second language groups (Figs. 7-1; 7-2; 7-3).

4. Hawaiian Pidgin subjects tend to look more like second language groups than subjects whose first language is a dialect of English. HP subjects, like NA subjects, do not follow the general trend of increase of retelling score means from grade level to grade level, although their decrease is not as consistent as the NA subjects. As a group, the HP subjects produced the second lowest retelling mean score on the 6th grade standard story (Fig. 7-5). In both fourth and sixth grades, the HP and HS subjects read the same stories. The sixth grade HP subjects produced lower retelling mean scores than the HS subjects on both the standard and the culturally relevant stories. For some reason, in each case for each grade and each type of story, the HP subjects had a narrower range of retelling scores than the HS subjects (Fig. 7-1; 7-2; 7-3). The second grade HP subjects do seem to be within the range of other dialect readers as far as retelling score means are concerned. The HP subjects maintain this for the fourth grade standard story but not in the retelling of the fourth grade culturally relevant story. The HP fourth grade subjects have a higher retelling score mean (51) than the HS subjects (49) on the standard story, but have a retelling score mean that is fifteen points less on the culturally relevant story Royal Race (Fig. 7-3). This may be a function of the cultural difference between the HS group and the HP group. Royal Race was chosen because it represents a Polynesian tribal experience set in the Polynesian Islands. The HS cultural background may be closer to the culture of this story than the HP group, which is made up of racially mixed peoples more strongly representing the Oriental than the Polynesian cultures.

5. The Navajo subjects tend to have the lowest mean scores for all grades and all stories. For the second grade NA standard story, the retelling score mean is within the range of other second graders, but it must be remembered that they are reading a primer story. They read the same primer story that the HS subjects read in the second grade and produce a lower mean score than the second grade HS, although one HS reader does produce a lower retelling score than any of the NA readers

Figure 7-5

Range and Mean of
All Subjects by Group



(Fig. 7-1). On the fourth grade standard story, all the NA produced the lowest retelling scores with the exception of one HS subject (Fig. 7-2). What is most interesting, however, is how well the fourth grade NA subjects did on Salt Boy. For this story only, all of the subjects got a retelling score of 40 or better (Fig. 7-2). This story had many aspects of cultural relevance to which the readers could relate. It is a story which takes place in the present, and it is about a young Navajo boy who wants to learn how to rope horses. The story explores the relationship between the boy and his father. The setting is similar to the one in which the Navajo subjects live. Sheepherding activities and problems are developed and a beautiful relationship between the boy and animals is described. This result alone suggests that it is important that schools spend the time necessary to commission the writing of, or to find already written materials which relate to the background and experience of the readers.

6. Fourth and sixth grade subjects tend to produce higher retelling scores on culturally relevant stories than on standard stories. This trend is not true of the second graders. In order to better understand this conclusion, the reader is directed to the section entitled "Selection of Stories". Examination of the overall mean retelling scores for each grade level (Table 7-2) shows that (except for the second grade-second language group and the fourth grade-dialect group) the culturally relevant story mean was higher than the standard. An examination of individual scores, however, again suggests the weakness of information drawn from mean scores alone. For many groups two subjects had higher scores on one type of story and two subjects had higher scores on another type of story. This is true of the HP, HS, AR, NA, TS, and DE second graders, and the AR, AP, and MB fourth graders, and the HP sixth grade group. The difference between the scores of the two stories for one subject can strongly affect the group mean. The groups which had three or more subjects with higher retelling scores on the same type of story (either culturally relevant or standard) are listed in Table 7-4 and will be used to explain the difference in retelling for culturally relevant and standard stories.

Table 7-4

DIFFERENCES IN RETELLING SCORES FOR
CULTURALLY RELEVANT AND STANDARD STORIES

Grade	Group	No. Higher on Standard Story	Mean	No. Higher on CR Story	Mean
2	AP	1	(40)	3	(45)
2	MB	3	(43)	1	(38)
4	NA	0	(31)	4	(50)
4	HS	3	(49)	1	(41)
4	TS	1	(49)	3	(59)
4	DE	0	(49)	4	(61)
4	HP	4	(51)	0	(26)
6	NA	3	(28)	0	(20)
6	HS	1	(39)	3	(53)
6	AR	1	(51)	3	(58)
6	TS	1	(52)	3	(61)
6	DE	1	(57)	3	(64)
6	AP	0	(59)	4	(76)
6	MB	1	(65)	3	(64)

For all groups in which three or four subjects did better on one type of story, all but four did better on the culturally relevant story. For second graders, the culturally relevant stories chosen for this study showed little difference in the retelling scores of the subjects. However, it was difficult to find stories relevant to second graders. The stories which the students seem to relate to most (reflected by retelling scores) are those not only relevant to the cultural background of the students, but also those relevant to the setting, including the time that the students live in, and an identification with characters which they could believe were their own age. Sweet Patootie Doll, read by AP second graders, was the most relevant to the lives of the readers than any other of the second grade stories. Clever Turtle, an African Folk tale about a large turtle who outsmarted adult villagers, seemed to be foreign to the young Black readers living in rural Mississippi, although some people might expect it to be relevant. For the fourth grade HS and HP subjects, Royal Race was harder to retell than the standard story. Again, although the story is set in the Hawaiian Islands and is about two young boys in competitive sport, the story takes place in "olden" times when kings still ruled tribal groups in Hawaii. This would be very unrelated to the lives of the HP group who have more Oriental than Hawaiian cultural background, and even to the HS group, in view of their modern cultural experiences. Sing Down The Moon is a historical novel representing the Long Walk of the Navajos which took place near Canyon de Chelly during the late 1860's. When culturally relevant stories, relevant in terms of many factors are used, it appears the readers are able to retell more of the story than they can if stories are more remote

from their life circumstances, especially in terms of historical perspective.

7. Retelling Scores correlated significantly with coded variables which are concerned with semantics. Retelling scores were correlated with other variables evaluated through miscue analysis. These variables included the degree of self-correction, the mean scores of graphic and sound similarity among others. Most variables did not correlate significantly with retelling scores. In some cases, the retelling scores of one grade level or the standard story for a grade level would show a significant correlation with a single variable (discussed later). Tables 7-5 and 7-6 indicate that the variables concerned with semantic categories were the ones which most consistently showed significant correlations with retelling scores. We used those stories in this data which were read by enough subjects to make the statistics meaningful. The semantically related variables include comprehending, residual miscues and semantically acceptable miscues.

Table 7-5

RELATIONSHIPS BETWEEN RETELLING SCORES
AND SELECTED VARIABLES FOR EACH GRADE

Variables	2nd Grade Total	4th Grade Total	6th Grade Total
Comprehending	r -.14 not sig.	r .31 sig. .007	r .33 sig. .003
Residual Miscues	r .10 not sig.	r -.38 sig. .001	r -.22 sig. .04
Semantically Acceptable	r .018 not. sig.	r .20 sig. .058	r .39 sig. .001
Syntactically Acceptable	r .27 sig. .01	r -.01 not sig.	r .29 sig. .009
Number of Subjects	64	64	64

Table 7-6

RELATIONSHIPS BETWEEN RETELLING SCORES
AND SELECTED VARIABLES FOR EACH GRADE
ON STANDARD STORIES

Variables	2nd Grade Story 44	4th Grade Story 51	6th Grade Story 53
Comprehending	r .43 sig..02	r .36 sig..02	r .37 sig. .01
Residual Miscues	r -.27 not sig.	r -.35 sig..01	r -.31 sig. .04
Semantically Acceptable	r .33 sig .05	r .27 sig .06	r .40 sig .01
Syntactically Acceptable	r .38 sig .03	r .27 sig .06	r .50 sig .002
Number of Subjects	24	32	32

The comprehending score indicates the percent of miscues which are fully semantically acceptable plus those unacceptable miscues which are appropriately corrected. The residual miscue per hundred words score is the ratio of miscues which are not semantically acceptable and are not appropriately corrected by the reader. The correlation between retelling and residual miscues per hundred words is a negative one. The readers with the fewest miscues which disrupt meaning have the highest retelling scores. The percent of miscues that are semantically acceptable indicates the reader's search for meaning during the process of reading.

The totals for all grades showed statistically significant correlations between these measures (Table 7-5) except for the second grade, although the second graders reading Kitten Jones (Table 7-6) did show statistically significant correlations. But even the second grade total group showed positive correlations between retelling and the percent of miscues which were semantically acceptable and comprehending and a negative correlation for residual miscues per hundred words like the other groups.

That these semantic measures are significantly correlated with the retelling score suggests a relationship between comprehending -- the search for meaning at the moment of reading -- and comprehension -- the reconstruction of meaning which develops throughout the reading. That these measures do not have high correlations may reflect those aspects of meaning which a reader discards or does not store in long term memory, possibly because the information is insignificant or cannot be related to the prior knowledge of the reader.

8. Retelling Scores Correlate Significantly with Percent of Syntactic Acceptability. The only variable not concerned directly with semantic information which correlates significantly with the surface retelling score is the percent of syntactic acceptability (Table 7-5 and 7-6). Students with higher retelling scores tend to produce more sentences which are fully syntactically acceptable than those subjects with lower retelling scores. Since there is a significant correlation between semantic acceptability and syntactic acceptability, it is not surprising that the variable of syntactic acceptability correlates with retelling.

9. There is no significant correlation between total number of miscues per hundred words and retelling scores for most groups. Only fourth graders show a significant correlation between MPHWS and retelling scores. There is a negative correlation of .30 for story 51 which is significant at the .05 level and a negative correlation of .29 for all fourth graders which is significant at the .01 level. This may reflect the careful reading of fourth graders, which has been noted in other miscue studies rather than any significant relationship between small number of miscues and retelling scores. However, for the DE, HS, TS and AR groups, the subject with the highest retelling score also has the highest MPHWS and none of the top retelling scorers has the lowest MPHWS in his/her respective individual group. For example, the MB and AP second graders who have the highest retelling scores on Kitten Jones had 22 and 26 MPHWS respectively, while the lowest retelling scorers in those groups have 20 and 13 MPHWS.

When the fourth graders who have the top retelling scores for each population on the standard stories are listed in order and their MPHWS are also listed, it is obvious that the highest retelling scores do not have the lowest MPHWS nor do the lowest scoring retellers produce the highest MPHWS (See Table 7-7).

Table 7-7

FOURTH GRADE RETELLING SCORES AND
MISCUES PER HUNDRED WORDS

Top fourth graders in each population

Subject	Retelling Score	MPHW
HS 713	72	11
AP 414	70	9
MB 312	63	10
HP 812	63	8
HP 814	63	12
TS 112	60	11
DE 217	53	15
AR 618	47	12
NA 512	34	11

It should be remembered, however, that residual miscues per hundred words has a negative correlation with retelling (See Tables 7-5 and 7-6).

Inferential Information

There are limitations on what statistical information can reveal about retelling and its relationship to comprehension. In addition, to the scoring of surface information, statements of plot, theme, inferences and misconceptions made by the readers were collected and analyzed to add to the growing body of knowledge about comprehension, or the construction of meaning during reading. As this analysis was done, it became obvious that each reader's retelling was rich with information about how comprehension occurs in reading. For the purposes of this report, we have just scratched the surface. We have raised the following questions and discussed our thinking at this point in time. More depth analysis of our own data, as well as other research which will deal with similar questions, needs to be considered before more definite conclusions can be formed.

There are six major questions which we will consider in the discussion of readers' retelling of stories.

- I. When students retell, are there patterns to their retelling procedures?
- II. How do subjects retell surface information such as characterization and events?
- III. Does a reader relate events in stories to his/her own personal life in the retellings.
- IV. Are plot statements part of retellings?
- V. Are theme statements part of retellings?
- VI. What evidence is there about the way readers develop concepts and misconceptions during their reading? Do readers make inferences from their reading? Is this related to the written language of the text or the reader's own miscues?

I. Organization of Retelling Response

During the unaided retelling, readers seem to choose one of five ways to retell. Each mode of retelling may include misinformation or misconceptions as well as appropriate information.

- a. Kaleidoscopic retelling
- b. Total story retelling in sequential order
- c. Main events retelling in sequential order
- d. Plot statement followed by total story retelling in sequential order
- e. Plot statement followed by main events retelling in sequential order

Prior to discussing the readers' organization of response, it is important to remember that the readers were asked a specific question prior to their retelling to elicit as much information as possible. The question to all readers was, "Tell me everything you remember about the story." It is important to consider that different initiating questions such as, "Tell me about the story," or "Tell me what you liked best about the story," or "Tell me the most important things in the story," may provide other organizations of responses. Regardless, with the use of the same question for all, the unaided retellings could be categorized according to the five procedures.

a. Kaleidoscopic Retelling

This type of retelling involves a random recounting of events. For example, one second grader retold The Big Surprise in the following order. (The numbers indicate the actual order of the events in the story.)

Example: Excerpt from HS second grader retelling The Big Surprise

The boy had a balloon.	5	
And he saw all the balloons.	1	
And the man was blowing the balloon.		Information from picture; not mentioned in text.
So the man gave the boy one.	4	
He said, "What picture is this?"	2	
And the boy said, "It's monkey."	3	

Many NA readers provided kaleidoscopic retellings. Whether a function of not being fluent in English or of a cultural or school-learned response, many NA readers retold the story by providing short syntactic units.

Example: Excerpt from NA sixth grader retelling My Brother Is A Genius

R:* Can you tell me the story back in your own words? Ok. Go ahead. Tell me this. . . everything you can remember about this story. (Long pause) It doesn't have to be exact. Can you tell me something about who was in the story and what they did?

S:* Baby brother.

R: Ok. What happened to the baby brother?

* Throughout this chapter R: refers to Researcher and S: to the reader subject.

- S: Cry.
- R: Cried?
- S: Yes.
- R: Anything else about the baby brother that you can tell me? (Long Pause) Did the baby brother do anything else besides cry?
- S: Yes.
- R: What else did the baby brother do besides cry?
- S: Umm (long pause)
- R: Did the baby brother have a name?

This may be a method Navajo children learn to use in order to avoid providing language information which teachers might correct. When the researcher used less direct questioning, the students occasionally offered more sequential information.

Example: Excerpt from NA second grader retelling The Big Surprise

- R: Tell me what you remember about this story. (Pause)
- S: Hat (pause) The man (pause) circus balloon (pause) Big Joe (pause) The hat, the hat (pause) The long nose (pause) Ted (pause)
- R: Ok. That's fine. Tell me about Ted. (pause)
- S: Ted saw a man (pause) with balloons in his hand (pause) He saw a monkey (pause) on the balloon (pause) and (pause) a bear on the balloon. (pause)
- R: Ok. (pause)
- S: He saw many circus animals.

Other readers also provided evidence of the kaleidoscopic mode of unaided retelling.

Example: Excerpt from MB second grader retelling Kitten Jones. (The number indicates the actual order of events.)

- S: (4) The kitten loved the ball most of all -- better than the camera and
 (2) Kitten Choseph took a picture of Penny's father in the garden.
 (1) And the boy came home running and his mama stopped sewing and looked at him and said, "What's, what's exciting?"

- (3) And the girl found the kitten playing with the camera but he took a picture.

Of all the types of retelling organizational responses in this study, the kaleidoscopic retelling was used less than any of the others by all readers.

Prior to leaving the discussion on kaleidoscopic retelling, it is important to keep in mind that the story itself may also play a role in how it can be retold. Much of the material for young readers has little to sustain the story. Although such material was avoided in this study, young readers may have had little experience with stories which can be recounted in a set order. Other factors which need to be examined are related to such questions as: Do young readers know that stories are continuous and related? Or do they regard each page or incident as separate and unrelated and therefore see no reason to recount them as related wholes? Does the language in books for young readers provide relational connectors to help readers know that one part of the story is related to another? In other words, do young readers have the concept of "storyness" in written material and does the written language help develop this concept? Even though young readers may have insights into oral story composition, they may not see books as places for continuous story information.

Readers may be providing evidence through kaleidoscopic retellings that they view written and oral language as different forms if they recount them in different ways. This could be true, especially for readers whose instructional material in reading is in the form of words, sentences or one-page stories. They may see written stories as unrelated pieces of written material, even though they come from cultures rich in oral story-telling. Profoundly deaf readers show evidence of such a view (Ewoldt, 1977).

b. Total Story Retelling in Sequential Order

Many of the retellings were sequential. Children seemed to start at the beginning of the story and continue telling the story step by step. Occasionally, minor events would be out of sequential order, but in most cases, significant information was kept in order. Many retellings seemed to be almost as long as the story itself. Word count and T-unit count of each reader's retelling remain for further research. Appalachian-White and Arabic readers, among others, were loquacious in their retelling, so this did not seem to be a function of dialect populations vs. bilingual populations although certain groups did seem to retell more as a group than others. Such complete retellings could have been a response to the initiating retelling question, "Tell me everything you remember about the story." The following is an example of sequential retelling.

Example: Excerpt from AP 4th grader retelling Freddie Miller, Scientist.

S: Freddie got Elizabeth's doll and tried an experiment and turned it green, and this -- his mother said, "You act like Uncle August." And then his mother said, "You are going to have to give half of your allowance to Elizabeth." And then he fixed the clock and then his father said the next morning, "After all, that clock works." And then he went to fix the clock again and made it so loud it sound like a fire engine, and it rung at three o'clock in the morning. Then Elizabeth got caught in the door and she couldn't get out, and he made her a flashlight and then she wasn't afraid. Then he went and got mother, and when father come home, she run to the door and pulled him in, and he come in the kitchen, and then his brother was working in the kitchen with his chess set and his mother was cooking breakfast, and then they told him the whole story.

c. Main Events Retelling in Sequential Order

This mode of retelling with the previous mode, Total Story Retelling in Sequential Order, accounted for the majority of all retellings. The only difference here was that the reader retold the main events in order, eliminating supporting detail or less significant information.

Example: Excerpt from Maine sixth grader retelling Two Against the Sea.

S: It was about two girls, and they was going to gather wood, and then one of them fell in and the other one tried to help the one that had fallen in, fell in too, and they got both to safety, and they was picking up wood.

d & e. Plot Statement followed by Total Story Retelling in Sequential Order, and Plot Statement followed by Main Events in Sequential Order.

Both of these forms are related to each other as well as to the two procedures described prior to these forms. The readers chose to retell the total story or the main events in sequential order. However, they provided a plot statement prior to the sequential retelling. (See later discussion). Although such modes do take place among second graders, we have hypothesized that the ability to restate the whole story succinctly seems to be a function of older readers since a reader must be able to abstract the main events and relate them to each other. Secondary school teachers are often heard to decry the way some students have of recounting a story. They wish they could reduce it to its major elements. It remains for further study to discover whether this ability to state a plot initially when it is not asked for through direct questioning is a function of maturity, cultural background, instructional methodology, or the story itself.

Following is an example of an overall plot statement, followed by sequence of events.

Example: Excerpt from HP sixth grader retelling Ghost of the Lagoon.

S: It was about a Hawaiian boy and his mother and his grandfather and about a legend of the shark and of the ghost of the lagoon.

And the grandfather told how his father died from the ghost of the lagoon and the boy made a canoe to go out to kill the ghost of the lagoon. And he took his dog, Afa, and by the time he was finished picking bananas and oranges, it came dark and he told the ghost of the lagoon that he was going to come back the next day and teach him the good lesson, and he saw the hump on the surface of the sea and he thought he knew that hump wasn't there before -- when he came to the island to pick bananas -- and then he saw the shark's tail and he had to do something and so he got his spear and he threw it at the shark and got him in his eye and then Makoo's dog fell overboard and was swimming towards the shore, but the shark was chasing Afa's dog and Afa took. . . Makoo told Afa that, to come back to the boat. So Afa was trying all his... with his, swimming with all his strength to swim back to the boat so, and Makoo was trying to get Afa but he was unbalancing the canoe and almost tipped over. So he went throw the spear. He threw the spear again and got the shark in the other eye and the shark was dying from loss of blood and then Makoo got Afa on the boat. And Afa, and then the shark was trying to pull the trick on Makoo then. So he tried to make believe that he was dead but he wasn't. Makoo looked at the shark's tail and his tail was still kinda moving and he knew so...he knew that if the shark would catch them with his tail, with a whack of his, that his tail, they would overboard and they would be destroyed by the shark and finally the shark went down to the sea to pick up more speed and Makoo threw a spear into the shark's shoulder and when the shark come up he was really dead and he, Makoo took the shark back and everybody was, everybody told him that Makoo caught the ghost of the lagoon. And that was the end of the ghost of the lagoon.

Students did not always choose the same method of retelling for each story they read. One sixth-grader retold My Brother Is a Genius in first person, as if she was the story teller. The story was retold completely and sequentially.

Example: Excerpt from AR sixth grader reading My Brother Is A Genius.

S: My father told me to stay, you know, like, uh, babysitting, sitting with my baby brother. And I told my father that I have to read but he said, "Just don't think of it as a baby sitter; just think as you have to work at home." And then he put the coat on my mother's shoulders and they went.

This could be due to this reader's reaction to the author's style of writing, (My Brother Is a Genius is written in first person), as

well as a different understanding of the nature of the retelling task, as exemplified by the same subject's retelling of the culturally relevant story, Fareedah's Carpet. For both stories, the researcher made the same statement: "Would you tell me everything you can remember about the story."

Example: Excerpt from AR sixth grader retelling Fareedah's Carpet.

S: The story was about Fareedah. She was lazy girl, and she doesn't like to do anything, just sit beside the bushes and lay down. And when her mother tell her to do something, she'll make something. (pause) Should I tell the story back?

R: Ok.

S: Fareedah was a lazy girl. She doesn't like to do anything, and when her mother tell her to do things, she'll make excuses; you know, that she wouldn't do it. And then she told her one day to take the sheep and stay beside them to let the sheep feed...

From this point on, the reader retold the story sequentially and thoroughly. It seems as though her understanding of the task was to retell as closely to the author's style as possible because she begins by giving a character analysis of Fareedah, then interrupts herself to ask, "Should I tell the story back?" When the researcher says, "Ok," she begins again, telling the story more in the order the author used.

Readers obviously retell stories using different patterns. Further study will be needed to find out if there is a developmental sequence from one type of retelling to another and to see whether different groups of children (bilingual, dialect, regional, ethnic) prefer one mode of retelling to the exclusion of others. It may also be possible that different types of stories call for different kinds of retelling. cursory examination suggests that such differences do exist. In most cases, readers focus to a great extent on retelling stories sequentially with great detail. It might be helpful, in subsequent research, to relate kinds of retelling to the purpose for the retelling.

II. Retelling of Surface Information

Characterization and Events

Almost all readers have the ability to reconstruct enough information from their reading to tell about major events and characters in the story. They may not always remember the proper names of the characters but can provide enough information about them so the researcher knows to whom they are referring. The following example provides supporting evidence. Major characters are underlined once with the text name immediately following in parentheses. Major events are underlined twice.

Example: Excerpts from a MB second grader retelling Kitten Jones.

S: Kitten Choseph (Kitten Jones). . .

Penny's father (Mr. Jones). . .

The boy (Jack) came running. . .

His mama (Mrs. Jones) stopped sewing The girl (Sue) found the
kitten playing They (the judges) said, the picture was pretty

Examination of the retellings of the subjects with the lowest retelling score for each population suggests that providing surface information from the story is an ability used by almost all readers in this study. In the retellings of both stories by the 24 subjects with the lowest retelling scores for their group, there were only three instances in which most or all of the major events were not recounted.

In the story Kitten Jones, read by second graders, there are eight characters. None of the lowest retelling scorers omitted Kitten Jones, the only important character in the story, Mrs. Jones, the mother, who was introduced at the beginning and is significant to the story, or Jack, the only male child in the story. All but one of the retellers in this group mentioned Mr. Jones, the father, also important to the story line. There are two female children in the story. All but two retellers mentioned Penny and all but one mentioned Sue. In that one reader's retelling, the characters of Penny and Sue were collapsed into one, which the reader referred to merely as "the girl." (Often when stories have a number of similar characters who have similar or undefined roles, age, etc., many readers collapse these characters into each other.) The insignificant characters such as Mr. Vine and the judges were only mentioned by one of these subjects. The judges were important to the story since they gave the prizes, but these children were able to say that the kitten won the prize without mentioning who gave the prize.

In retelling the culturally relevant story, all but 2 of the 24 subjects with the lowest retelling scores for their group were able to mention all the major characters, and half of the subjects recounted all the characters in the story.

When retellings are compared to the actual written stories, it becomes obvious that the readers must be very actively thinking about their reading in order to recount even the surface information of the story.

For example, in the story Freddie Miller, Scientist, one sentence in the text reads: "Seriously Tinker, sometimes I wish you didn't want to be a scientist." (Lines 0504-0505)

Eight subjects transformed the previous statement with a comment similar to the following made by a Hawaiian Samoan subject:

R: What do you think this story is trying to tell us?

S: That the boy wanted to be a scientist.

In Royal Race the last sentence of the story reads, "It meant that this father had truly found a royal son." (Lines 1620-1622).

One Hawaiian Pidgin fourth grader said:

S: Umi was a true son. Umi found his father.

In both of these examples, it is not simply a transformation of sentences which helped the reader provide what might be considered simple recall of facts. The readers had to realize the significance of these lines to the rest of the cumulating meaning of the story to focus on this in their retellings. The more one examines an open-ended retelling, the more obvious it becomes that readers, even in the recounting of surface detail, have to 1) make judgments about the significance and insignificance of information; 2) categorize and evaluate the roles of various characters in a story; 3) relate what they are reading to what they already know; and 4) become involved with how problems are solved in a story.

One example of the complexity of what, to some people, might seem to be simple recall can be seen in how readers decide whether the main characters are male or female. Five of the stories used in the study are told in first person. Frequently there are few, if any, references to the story-teller. Often the first person character has no name and few, if any, pronoun references.

In My Brother Is A Genius, the storyteller is never given a name and all the specific references to the first person are listed as follows:

The narrator says: "I guess a fellow has to work off steam once in a while." (Lines 0205-0206)

The TV executive says to the main character: "It will be a live show. Live! Boy, live." (Line 0519)

"I think you may have hit on a gold mine, my boy," the producer says to the story-teller, after playing with the baby brother. (Line 0526)

The TV executive says to the parents about the major character: "You know, this boy of yours is quite a businessman." (Lines 0614-0615)

There is one illustration with a boy in it throughout the story.

In Sing Down the Moon, read by the sixth grade Navajos, the specific references to the sex of the first person main character include:

Nehana told Running Bird and me to put the blankets over our heads. (Lines 0219-0221)

Nehana pulled at my dress. (Line 0505)

The women ride horses that belong to us. (Line 1310)

There are no pictures in the sequence read by these subjects.

In Cat Fight, read by sixth grade Appalachians, there was an abstract picture of the back of a youngster which could have been either male or female. There is only one specific reference to the sex of the main character -- when an older man in the story says to the male main character, "When I was boy, no oldern' you." (Lines 0316-0317)

Yet with few overt cues to the main characters, rarely did any of the subjects confuse their sex. One Texas Spanish subject referred to Miguel in And Now Miguel as Miguelita once and called him both "he" and "she" during the retelling, which is common to some second language retellers. We were unable to determine which sex the subject thought he was.

Another TS subject called Juby (a male friend of Miguel's) in And Now Miguel, "Judy" throughout the reading and the retelling but used male pronouns when referring to Judy during the retelling.

Out of 32 subjects reading My Brother Is A Genius, one female subject referred to the main character as a female. Considering that the story starts with the main character being a baby sitter and there are only six cues to the possible sex of that character in a 2,030-word story, it is amazing that more subjects did not get confused.

Since almost all of the subjects recognize the sex of story characters appropriately, it becomes obvious that readers must interrelate and evaluate a great deal of the surface detail and make a variety of judgments which include inferences about sex-role orientation in order to make a statement such as. . . "The story was about this here boy and his baby brother."

A curious phenomenon which needs further investigation is the recall which many readers have about information which seems insignificant to the researcher. It may be that what is perceived as insignificant to an adult is, for a variety of reasons, significant to younger readers.

In My Brother Is A Genius there are two such items:

"He's eight months going on nine." (Line 0511)

Excerpts from Retellings:

TS: "It was eight months and he was going to nine."

DE: "Eight months going on nine."

AP: "His baby was eight months and going on to nine."

AR: "He was eight months old and he was going on nine."

Miss Brown, a minor character, is mentioned twice:

"Front office. Miss Brown." (Line 1004)

"I dashed out of the studio, found Miss Brown and was back in a few seconds." (Lines 1006-1007)

Excerpts from Retellings:

MB: "Then Mr. Barnaby threw up his hands. He pointed to the door. He said, 'Mrs. Brown.' Then Andrew ran down there, got a dictionary."

HP: "Mr. Barnaby told that Andrew to get something from his secretary, Miss Brown."

AR: R: You mentioned Miss Brown. Who was she or what was she?

S: She was a secretary.

R: Do you remember whose secretary she was?

S: Mr. Barnaby's.

NA: R: Who else was in the story?

S: Miss Brown.

R: Who's Miss Brown?

S: A lady that helps Mr. Barnaby.

When readers deal with surface information too literally, they produce misinformation which may be logical to them but inappropriate from the point of view of other readers. This phenomenon seemed to be a greater problem for second language groups than for the dialect groups. For example, the story Freddie Miller, Scientist begins with the sen-

tence Poor Freddie was in trouble again. One of the Navajo readers said, "Freddie was a poor boy," (a syntactically possible but semantically misleading transformation) and one of the Samoan subjects recounted "Freddie's mother didn't like his experiments because he would waste things and they didn't have much money." These subjects inferred a great deal of information from their understanding of the phrase poor Freddie.

There are other examples which show that a too-literal use of surface information may cause a variety of misconceptions.

In My Brother Is A Genius the text reads: "Every year they give a prize to the student with the most original outside project." (Lines 0228-0301) Even though the subject knew (based on his retelling) that the project was putting the baby on television and the story took place in a studio, he related the following.

Example: Excerpt from AP sixth grader retelling My Brother Is A Genius

R: What was the big brother like?

S: Well, he wanted to win the projects that they had.

R: What projects?

S: Mm....I'll have to think a minute. (pause)

R: What did you have to do to win it?

S: You have to have a certain thing going outdoors, y'know like.

Text: Snap! Snap! Snap! They took pictures of their father working in the garden. Snap! Snap! Snap! They took pictures of their mother wearing her party clothes.

Snap! Snap! Snap! They took pictures of their friends playing in the school yard. (Lines 0305-0310)

Example: Excerpt from AR second grader retelling Kitten Jones

S: Kitten snapped at the boy.

III. Personal Responses

Personal responses are defined as responses made during the retelling which related directly to the personal life of the subjects. This is not to suggest that all responses to literature are not basically personal. We have simply collected a group of responses which were not easily categorized in any other way.

Because of the kinds of questions that were asked, there were not many personal responses to the story given by the subjects. (No personal responses were given by the subject in each group with the lowest retelling score for that group.)

Personal responses take a variety of forms. Some of them suggest that the reader is unable to separate himself/herself from the actor or action in the story.

Example: Excerpt from HP second grader retelling Ah See and the Spooky House

R: How ~~do~~ you feel about the story?

S: Was gonna eat me.

R: Were you scared? (Child shakes head no) Why weren't you scared?

S: Didn't make a mouth at me; that's why.

In other retellings subjects projected emotions into the story.

Example: Excerpt from HS fourth grader retelling The Royal Race

S: When Umi told his father he was the son of him, I feel proud like that. Then when his father got proud, I was happy in that story.

R: How did you feel about Ahele and what he did?

S: I feel so angried at him.

R: Why?

S: Cause he's trying to cheat, and he wants him to win, not his little brother Umi.

Other times the story seemed to remind the subject of something in his or her own life's experiences.

Example: Excerpt from AP fourth grader retelling Freddie Miller, Scientist

R: As you were reading this story, was there a question in your mind that you wanted to find the answer to?

S: I wanted to know why did he always have to do everything? I'd be afraid I'd get in trouble if I fixed the clock or something.

Example: Excerpt from MB fourth grader retelling Little Brown Hen

R: I just wondered if you thought there was anything you might learn from the story or if you thought the author was trying to tell you something.

S: I didn't learn anything from the story. When my mother birthday come I'ma try to get her things.

Example: Excerpt from HS sixth grader retelling My Brother Is A Genius

R: You like this (story) better. How come?

S: Because it has a baby in it.

R: Do you have any baby brothers and sisters?

S: Yeah.

Example: Excerpt from AR sixth grader retelling My Brother Is A Genius

R: Have you ever known a baby like in the story?

S: A little bit like him. I don't know; it's just that when we say the words, she'll say them over again and she'll remember it, and she's only two years old. All the words that we say. And she knows how to talk Arab and Lebanese and American.

Example: Excerpt from MB fourth grader retelling Freddie Miller, Scientist

S: It was easy for to read, but I wasn't looking for the answer or nothing, 'cause I knowed the person he was talking about.

IV. Plot Statements

Plot statements include a succinct restatement of the main events of the story and how they relate to each other, or a statement about the major problem of the story. Such statements, according to the criteria set for this study, must be specific to the story. Out of 192 retellings, 80 had a plot statement which usually took one of two forms.

For some subjects the plot statement was the first statement of the unaided retelling. A Maine fourth grader started his retelling with, "There was this boy, Freddie, he wanted to be a scientist when he grows up, like his uncle, I guess, and he always kept making experiments," and a Mississippi second grader -- "Jack, Ann and the little kitten, they wanted to win a contest and they won because the kitten took the picture."

About fifteen of the 80 plot statements were of this type, and seven of these 15 subjects also responded with a plot statement during the directed questioning of the aided retelling.

The rest of the plot statements were in response to direct questioning during the aided retelling. Plot statements are often elicited through such direct questions as: "Can you tell me what the whole story was about in a sentence or two?" or, "Was there anything you were worrying or wondering about while you were reading?"

Plot statements don't seem to be a function merely of readers who come up with the highest retelling scores. Examination of students with the lowest retelling scores in each population group indicates that they also give plot statements, both in the unaided section of the retelling and in response to direct questioning. Plot statements were always appropriate to the story, although they were not always the main story line. Some students focused on a part of the plot.

Example: Excerpt from AR sixth grader retelling My Brother Is A Genius

S: About a boy baby who starts speaking when he was small.

Other subjects focused on subplots.

Example: Excerpt from DE sixth grader retelling My Brother Is A Genius

S: A boy tried to improve with his brother. He told him everything in the dictionary and he learned it all.

Implications from examination of plot statements suggest that many readers of different ability and age levels can abstract the story line into a short statement. It would be interesting to find out whether the lack of plot statements is related to 1) the function of questioning techniques; 2) the function of instruction; or 3) the way the reader views how stories should be retold and what he thinks is expected by the adult.

V. Theme Statements

Theme statements are some generalizable statements made by the subject about the purpose of the story or the intent of the author. A theme statement, according to the criteria set for this study, is not specific to the story. Theme statements are often elicited through such direct questioning as: "Why do you think the author wanted to write this story?" or, "What was the author trying to teach you when he/she wrote this story?"

While almost 42% of the subjects' retellings have a plot statement, only 30% provided theme statements. Although some subjects spontaneously gave plot statements as part of the unaided retelling, almost every theme statement was in response to a direct question such as, "What lesson do you think the author was trying to teach in this story?" One Appalachian fourth grader, however, responded with

a theme statement when asked, "What kind of story was this?"

Example: Excerpt from Appalachian fourth grader retelling Old Ben Bailey

S: It'd teach the lesson not to never play tricks on anybody 'cause you just get them right back.

It seems that for most of these subjects, however, retellings are not supposed to include spontaneous statements about a story's purpose or its generalized moral or lesson.

Readers must understand the role and function of stories before they can respond with an appropriate theme statement. They must have concepts about the role of the author and the function of literature in a society. These concepts no doubt come from their experience with reading. An analysis of the theme statements provided by the readers suggests that many readers have limited concepts or misconceptions about the role of an author. Some readers responded to the question, "Why did the author write the story?" with such comments as:

DE fourth grader: Story was trying to teach you a reading lesson.

AP fourth grader: To see how good I could read.

HP second grader: To teach me how to read.

HP second grader: To teach me words.

These subjects seem to have the notion that reading material, at least in the kind of setting provided by the research, is for the purpose of reading instruction.

Other readers viewed the story material as if its purpose were very specifically instructional when asked why the author wrote the story.

NA fourth grader: How to rope.

DE fourth grader: How to make a flashlight.

HS second grader: Teach how to take care of pets.

AP sixth grader: How to babysit a baby.

Of the theme statements that were given, the majority, although different from the theme an adult might expect and different from subject to subject, could be justified from the story.

As adults we might expect the following theme statement from Freddie Miller, Scientist: It sometimes takes a series of failures to produce a success. (Some examples from that story are listed to indicate the variety of theme statements produced by the subjects.)

TS fourth grader: Not to be messing with chemicals. You might turn something and you might do something (wrong - inferred from intonation).

HS fourth grader: Like you want to be a scientist, you reading the book and going try learn. You try so hard then you going to learn it.

MB fourth grader: Got to keep trying.

AP fourth grader: Not to do everything like he (Freddie) did and if you did experiment you'd have to take time.

Looking at the theme statements provided by readers suggests a number of implications:

1. These readers do not often spontaneously respond with a theme statement.
2. Whether they understand how to respond to a question about author's intent seems to be related to readers' concepts about the function of a story and the role of the author. It would seem that reading instruction should help students become aware of the author's role and the variety of purposes authors may have when they write.

VI. Inferences, Concepts, and Misconceptions

The discussion of retellings to this point has focused on how readers respond to surface information, their personal responses to literature, and the traditional concerns for theme and plot. Now we will explore questions related to inferences and concept-development in reading: Does the retelling provide evidence about concept-development and the ability to make inferences as these subjects read? What is the relationship of a reader's background and experience to concept-development and making inferences? How does the author's language support or interfere with inferences and concept-development? How are the reader's miscues involved in their inferencing and development of concepts?

As we discussed in the section under Recall of Characterization and Events, almost all statements which these readers made about the stories they read involved making inferences to some degree. Readers do not seem to be able to simply read without actively interpreting.

They do not seem to be able to avoid going beyond the surface information even in such simple tasks as knowing the sex of the characters in the story. The cues to such information seem so obvious to adults even when they are not in the surface of the literature, that evaluators take it for granted that such information is available to the reader.

Terms such as concepts, misconceptions and inferences are difficult to define and there is a great deal of disagreement in education and psychology about their definitions. In this report we will consistently try to use the following operational definitions for these terms. When we speak about inferences, we are concerned with statements readers make which are not in the surface of the reading material but which readers infer from the information in the surface, based on concepts they already have. We will refer to concept as that which the reader probably did not know prior to reading but which was developed through reading. Since there are no terms such as "misinference," we use the term misconception to refer to any inferences or concept statements which readers make in their retelling which indicate readers used the story material inappropriately.

Readers can make inferences about whether a story is fiction or non-fiction based on their own background and experience. Although the story Fareedah's Carpet, read by sixth grade Arab speakers, is not related to the modern life of the readers, it is an Arabic folk tale and there are some relevant aspects to the story. One subject used her knowledge about camels to express her views about the kind of story she had been reading.

Example: Excerpt from Arab sixth grader retelling Fareedah's Carpet

- R: Ok, you said that a camel couldn't really talk. . . and then . . . what kind of story is this then?
- S: It ain't true.
- R: Could you tell me if. . . if. . . you could describe the camel, what kind of character he was, what could you say about him?
- S: Big. . . He drinks lots of water.
- R: How does he act?
- S: Strangely.
- R: How. . . what makes it seem strange to you?
- S: Well, he's big and the camel don't talk of course and they can't weave. . . and they don't eat food like us; they eat hay.

R: Do you think the person who wrote the story was trying to teach people anything by this story?

S: Yeah.

R: What do you think he's trying to teach us?

S: You can teach them stories like that can't be true and they are just for fun, to read.

The development of concepts and inferences made during reading are revealed through the words which readers did not know in their reading but which they were able to discuss in their retellings. It becomes evident through this examination that readers do not need to be able to pronounce even significant words appropriately in order to understand.

In the reading of Mr. Moonlight and Omar the word plow was read appropriately only twelve times by the fourth grade Arab readers -- three times by one reader, nine times by another, and at no time by the other two readers. Yet, the words plow, plows, plowed and plowing appear in that story thirty-one times.

These readers could discuss what a plow was and how it operated in the story, even though they were unable to pronounce the word. (See Chapter VI for complete discussion.)

Readers may omit unknown and unfamiliar words or they may try different non-words or inappropriate real words throughout a text for the same text word and then when referring to the text word in their retelling use still other non-words or inappropriate real words. This strategy of using a variety of attempts on unknown and unfamiliar words suggests that readers have a handle on knowing when they don't know. This is contrary to the behavioral notion that when students produce the same miscue repeatedly, they will reinforce their mistakes and forevermore continue to produce the same mistake for the same text word. Readers indicate through miscue analysis that they use complex strategies when they are concerned with an unfamiliar or non-word in a text. In many cases, they are aware of the fact that they are producing a non-word or an inappropriate word substitution and will make many different attempts. Their comments in their retellings reveal that they know they are not right.

Example: Excerpt from AR sixth grader retelling Fareedah's Carpet

R: Where did she weave the carpet?

S: In the \$grelo. I forgot the name of it.

R: Can you describe it to me?

S: Well, it's like a tent.

Example: Excerpt from AP sixth grader retelling My Brother Is A Genius

S: Well, he said that big old, long word -- Ph-p- (pause). I couldn't pronounce that.

Example: Excerpt from MB sixth grader retelling My Brother Is A Genius

S: . . .Andrew started sayin' some words like "Super" -- I can't say that word. Anyway, he started sayin' some words...

One Spanish sixth grader read for typical: \$typilal (7 times), \$typeical (2 times), \$typal (3 times) and topal (1 time) in My Brother Is A Genius. At the end of his unaided retelling he said, "He was a... How do we say that word?...\$follishal baby." This subject produced a variety of attempts for the word typical but even though the label was inappropriate, the concept about "typicalness" that he developed through the story was adequate to his understanding. (See example later under T123) Being able to pronounce the word appropriately does not seem to be as important to comprehension as the appropriate strategies for understanding what that particular word means. Appropriate surface pronunciation is not always related to reading comprehension. This is not to say that readers always know when they have miscued on an unknown or unfamiliar word. Some second language readers may lack confidence in their ability to know whether their surface pronunciation is a real English word or not. However, regardless of the oral rendition, they are often able to translate into their own meaning system and provide an explanation in English for the concept word. In the few situations when the second language subject was unable to explain some of the concepts in English and there was a research assistant available who spoke the same language as the subject's mother tongue, the reader was able to provide the concept in the first language. This means that some readers can receptively understand written English, but are only able to produce the evidence of comprehension in their own language.

Misconceptions provide important insights into developing comprehension. As with much of the research concerned with language and learning, evaluating the unexpected often yields more interesting data than looking at expected phenomena.

Misconceptions and concepts seem to develop in the same way. Readers use the information available from the author and relate it to their own storehouse of knowledge. Based on the interaction between themselves and the author, readers develop concepts about ideas they have never heard of before or about words for which they may have a concept but no label. There are a number of good examples in the stories Freddie Miller, Scientist and My Brother Is A Genius.

In Freddie Miller, Scientist, many readers are concerned with Freddie's movements up and down stairs as he experiments and finally as he helps Elizabeth by putting the flashlight he has made into the window over the door of the closet where Elizabeth got locked up by accident. Following are excerpts from the text about the particular concepts and then examples of sections from the retellings of selected fourth grade subjects in responding to the related concepts.

Concepts Relating to Cellar and Transom in Freddie Miller

- 0401 Taking the clock to the cellar, Freddie worked hard on. . .
- 0507 Freddie hurried to his cellar worktable.
- 0509 Just as he got the parts in place, he heard a faint tapping
0510 and a voice calling, somewhere above.
0511 When Freddie ran up from the cellar, he heard his
0512 sister's voice calling, "Freddie! Freddie!"
- 0522 Freddie, trying to think, looked up at the small window
0523 above the closet door. He had an idea!
0524 "Listen, Elizabeth," he called. "I'll fix a light and drop
0525 it to you through the transom.
- 0602 He ran to the cellar and picked up. . .
- 0701 He tied a string around the end of the ruler and hurried
0702 back upstairs. Pulling the kitchen stepladder out into the
0703 hall and climbing up on it, he found the transom within
0704 easy reach.
0705 "Elizabeth," he called. "I'm going to drop this light
0706 down to you through the transom. Catch it by the ruler
0707 and let me know when you can reach it."

Concepts Relating to Transom and Cellar
from retellings of
FREDDIE MILLER, SCIENTIST

- TS: Freddie went downstairs to \$crell...then he came out...He pulled the ladder to his sister and then he went up. He got a ladder and put the flashlight to the ceiling. Freddie did his work in a cellar. (R: What's another word for cellar?) Basement.
- DE: He reached it down into her...He took it from the carrol or something like that. (R: Where was that?) It was on top of the door. (R: What does it look like?) It's like an open space at the top of the door like so you can get something up there and just reach down in there.
- NA: He (Freddie) climbed up stairs. She (Elizabeth) was stuck upstairs in the closet. (R: How did he get the flashlight to Elizabeth?) I think he broke down a wall and gave it to her. -- Translated from Navajo: He says to come upstairs. Elizabeth went upstairs. Then he went back downstairs and make the flashlight. And went back upstairs. Then he gave the flashlight to Elizabeth.
- AP: He (Freddie) was doing things with his chemistry set in the cellar. .. He had a string tied to the end of the ruler and he slid it down on, I forgot what you call it. (R: Describe it to me?) I think it's a cellar. (R: What does it look like?) He slid it down and I don't know what it does. (R: Why did he slide it down?) So it could get to Edith. (R: How did it get to her?) He drugged the ladder out and there was a window up on top of the door that went down to the chute-like.
- HS: Freddie was working on his experiment and he heard a faint tapping. And when he ran upstairs he heard his sister Elizabeth calling, "Freddie, Freddie." He went work his experiment for make a flashlight and give it to her. Afterwards when he finish he reach on the door window and he pulled the wire down and he told Elizabeth tell him if she reach the wire...(R: How did he get it into the closet?) He saw the window from the door. Then after that he opened it and he told Elizabeth if she could reach the window from the door after he pulled the wire and the electricity stuffs in and he told Elizabeth for cried, out if she got the light...I didn't know how he (Freddie) did it (get light into window) because he was only two feet tall.
- AR: And if he came a flashlight, then he put, got it down from--forgot that name. And then he went down to the table, and he tried another big experiment. (R: You said he went down to that table. Where was the table?) In the basement, I think. (R: You said you didn't remember the name of a thing he got it down. Can you tell me what the thing was like?) I think it was the top and it was glass and it opens and closes. (R: On the top of what?) On the top of the door.

Students seem to use the information from the text in the same way. What causes the differences among readers' retellings seem to be the cumulation of experiences which readers bring to their reading. A reader who has had experience with closets, transoms, cellars, and life in a more-than-one-story house will be able to assimilate the information provided by the text differently than those students who have had limited experiences with closets, cellars or transoms. This will be true whether they have heard of the particular word or not. Readers who know basements can say to themselves as they read c-e-l-l-a-r (whether or not they pronounce the label appropriately) "Oh, that's some kind of basement." If they know basement as one kind of subterranean floor and cellar as a place where homemade canned goods are stored, they may need to make some modifications about how Freddie could be doing his experiments in a cellar.

On the other hand, the student who has had no personal experiences with any kind of subterranean floor and who has no idea of its purpose will have great problems trying to understand how Freddie helped Elizabeth. Those who know closets as little open cubicles in which a person can hang up clothes are going to be confused about how Elizabeth got locked in the closet in the first place and how Freddie got the light to her. The cues in the story help those who already know about cellars, transoms and closets to visualize and understand what happened. To those who have had little or no experience with such places in a home or school, the cues can suggest what happened but be very confusing as to the arrangements of things in the story.

In My Brother Is A Genius, the word typical occurs thirteen times and the readers deal with this concept frequently during their retelling. Often the same information is used by the readers but some students develop the appropriate concept in relation to the story and others develop misconceptions. Another aspect which has emerged from this analysis is that readers' definitions are usually story specific. Readers' retellings often reveal much about the background experiences of the readers through their comprehension.

Following are excerpts from the text related to typical and then excerpts from various sixth graders references to typicalness as related through their retellings:

Concepts Related to Typical from My Brother Is A Genius

- 0207 My baby brother Andrew made a few silly baby sounds
- 0208 and began to cry.

- 0323 I cleared my throat and said, "I want to sell my little
- 0324 brother. That is -- I mean I think just about everybody
- 0325 likes babies."

0405 "Well," I said, "my brother is a pretty good
0406 brother." Then I added, "As little brothers go."

0508 "And so you could just pick my little brother," I said.
0509 "He'd do just as well as anyone else his age."

0513 "The typical baby. That's it.
0514 Typical! A baby like everyone else's baby. A baby
0515 everyone will love. An excellent idea!"

0520 "But what if he cries or something?" I asked.
0521 "All babies cry," said Mr. Barnaby. "He wouldn't be
0522 typical if he didn't cry sometimes. Typical. That's it. Typical.
0523 The typical baby!"

0715 I leaned over the crib, pointed
0716 a finger at him and said, "Say da."
0717 Clearly and distinctly Andrew said, "Philosophical."
0718 At first I just looked at him. "Philosophical?" I asked.
0719 "Did you say philosophical?"
0720 "Communication," he said, also clearly and distinctly.
0721 "Mother! Dad!" I yelled. "Andrew isn't typical! He's
0722 — he's a genius!"

0801 "Mr. Barnaby!" I said at last. "Andrew isn't an ordinary
0802 baby!"

0809 "We've got to tell Mr. Barnaby," I said.
0810 "This baby is not typical."
0811 "I never thought he was typical!" my mother said. There
0812 was pride in her voice.

0824 He wagged a finger at Andrew and said, "Say da."
0825 "Intellectual," my little brother said, loudly and clearly.
0826 Mr. Barnaby straightened up, still holding the finger
0827 over the crib.

0901 "Intellectual?" he cried. "Intellectual?" His hands
0902 dropped to his sides. "This . . . baby . . . isn't . . .
0903 typical," he moaned.

0912 Mr. Barnaby slumped into a chair. "In five minutes we
0913 go on the air," he said, "with the 'typical baby.' The baby
0914 we've been advertising all week. Typical! Ha!"

1118 When
1119 we were out on the street, I saw that my mother was smiling
1120 broadly. "It serves him right for calling a child of mine
1121 typical," she said.

Concepts Related to Typical from Retellings of My Brother Is A Genius

- TS: His brother said he wasn't tropical...The baby began to cry and Mr. Brandly began worried or hysteria and he said that baby's not tropical real loud...the mother was disappointed because Mr. Brandly called his little brother not tropical...The baby wasn't good enough for the commercial...And the brother said that he wasn't very good, he wasn't very tropical at all either for the commercial...(R: What does it mean, tropical?) Not good or something like that or sometimes it could mean like a season or something like humid. (R: But in this story what do you think it meant?) It wasn't very good...(The man) said he wasn't tropical. I think he was (R: Why?) Little babies don't go to sleep when you say those kind of words.
- NA: The boy told Mr. Barnabye that the baby wasn't tricycle. The boy tried to find Mr. Barnabye to tell him that baby wasn't tricycle... (R: Was the baby tricycle at the beginning of the story?) Yes. (R: And he wasn't tricycle at the end, or he was?) Wasn't. (R: Did this baby act like all babies you know?) No, this baby talked. (R: Does that make a baby tricycle or not tricycle?) Not tricycle.
- HP: (R: How did they describe that baby in the story?) He looks just like an ordinary baby. (R: What do you mean he was kind of like an ordinary baby?) He looks like a lot of other babies, but not act like.
- HS: They thought the baby was but the baby wasn't trap. (R: What kind of baby is a trap baby?) The baby that couldn't talk. (R: And he wasn't a trap baby because...) he could talk.
- MB: He (the baby) was talking like somebody grown...like somebody in the 12th grade. (R: In the story you read the word typical several times. What do you think it means?) Kind of smart. And he wasn't like all the other kind...all the regular babies.
- AP: He (the big brother) said "he's not a typical baby." ...And they were saying that he wasn't a typical baby. (R: Who said that?) His mother or brother, one of them. (R: What did that mean?) He's something like a genius, he's real smart...(R: What does typical mean?) Not odd, just plain.

Misinferences, or inferences not appropriate to the story, provide additional evidence that readers' comprehension is related to the knowledge system they bring to their reading. This problem is often complicated by the text itself. In Freddie Miller, Scientist, there are only two references to the word allowance. Although the words look exactly alike and have the same grammatical function, each word has a different meaning in its particular context.

- 1) After the cut in his allowance, Freddie's chemistry experiments narrowed to those safely outlined in a library book. (lines 0219-0221)
- 2) Freddie's mother looked proud, too. "After this we must make some allowance for experiments that do not turn out so well." (lines 0804-0806)

The following examples are from two subjects who responded with misconceptions regarding allowance, each relating to one of the meanings for allowance.

Example: Excerpt from MB sixth grader retelling Freddie Miller, Scientist

S: They say everytime Freddie do experiment, they would pay him for his experiment. (Related the first use to the second.)

Example: Excerpt from DE sixth grader retelling Freddie Miller, Scientist

R: Do you know what an allowance is?

S: Yeah, it's where sometimes make a mistake someone yells at him. (Related to second use of the term allowance listed above.)

Many of the student's literal responses are based on lack of experience with the meanings of certain idiomatic expressions. For example, in My Brother Is A Genius, a text sentence reads. . .

And not only that, but you may be a real valuable gold mine.
(lines 0307-0308)

A Mississippi sixth grader developed an inference based on misunderstanding the text.

Example: Excerpt from MB sixth grader retelling My Brother Is A Genius

R: Why did they get into all of this? Why did the older brother start all this business?

S: Because he said that little Andrew had a gold mine.

Although not as prevalent a phenomenon as might be expected, there are times when the reader's miscues cause misconceptions. The following three examples show the text portion with all the miscues the particular reader produced. Following this is the section of the retelling which relates to one of the miscues. Note, however, that the readers

do not repeat the miscue exactly in the context that it occurred. When they use the information provided by the miscue, they rearrange it both syntactically and semantically to make it sound like appropriate language, as well as to make sense out of its intrusion into the story.

Example: Excerpt from AP second grader reading and retelling Kitten Jones

Reading: (Text with miscues marked)

Penny and Sue Jones liked to wear ^{2 parties} pretty colored dresses.
(Lines 0106-0107)

Retelling:

S: The candy shop was having a party.

Example: Excerpt from MB second grader reading and retelling Kitten Jones

Reading: (Text with miscues marked)

Then the first ^{S. Jones} judge said. . . (Line 0705)

^{soldiers just}
The second judge said. . . (Line 0708)

^{*juntum}
The third judge said. . . (Line 0710)

Retelling:

R: Who gave the prizes at the contest?

S: The soldier

Example: Excerpt from MB second grader reading and retelling Kitten Jones

Reading: (Text with miscues marked)

Kitten Jones would ^{RS} not have changed her white ^{fuzzy} fur coat for anything. And she always had that ^{what stop} spot of black fur ^{fuzzy over} above her nose. (Lines 0109-0111)

Retelling:

S: He was a kitten and he was white. Had a bow around his neck and he was fuzzy.

Example: Excerpt from TS second grader reading and retelling Kitten Jones

Reading: (Text with miscues marked)

They loved all the prizes ^{they} she received. (Line 0714)

Retelling:

S: There was this girl. . . names Penny, and Jack and Sue. They took picture of their mother and father. They won the contest.

Since the examination of miscues causing misconceptions does not reveal many examples and most of them occur among second graders, we therefore hypothesize that it is not miscues, per se, which cause misconceptions. Miscues are often caused by readers' predictions or expectations, based on their background and experience. The way the reader integrates the miscues with the development of the meaning of the story is what causes the misconceptions. Those readers who use confirming strategies effectively can even produce miscues disruptive to meaning and still reconstruct the appropriate meaning from the story. The examples of plow listed earlier, read by the fourth grade Arab readers, are good ones. These were often disruptive or unacceptable miscues at the point of reading -- the comprehending -- but the readers were able to comprehend the information by the end of the story during the retelling. We suggest this happens because as subjects read a whole story they rely on their own knowledge as well as the cumulating information provided by the story. Given the language of a whole text, readers can reconstruct meaning which is appropriate to the author. Additional information helps the reader reject or confirm prior statements which may have included meaning-disrupting miscues. This information readers use to rethink or rearrange the developing story being constructed. When readers do not have the appropriate background and experience to understand the story, they are less able to rethink the story as they are reading, and misconceptions result.

It is important when discussing, researching or building a theory concerning reading comprehension not to make decisions about what permits comprehension to take place without considering the reader's background and experience as it is related to the material being read. Using a single paragraph -- especially one irrelevant to the reader; counting number of errors; even looking at the unacceptable miscues

alone will provide a totally inadequate view of comprehension of reading materials. The retelling provides a great deal of evidence. But the degree to which readers produce semantically acceptable sentences, change the meaning of the text. All provide information about various aspects of comprehension.

One more phenomenon which was noted about retelling and which has implications for classroom instruction needs to be discussed. It became evident that the retelling itself helped readers think through what they had read, sometimes change ideas that they were developing, or bring a concept to fruition; retelling contributed to comprehension. Since the researcher was neutral and developed the retelling by continuous open-ended questioning but did not tell the students whether they were right or wrong, the retellers were not rethinking or changing their mind because of the researchers response. Somehow the need and opportunity for presenting their ideas to others provide readers with the impetus to think through what has happened, interrelate it with what they are saying, and then change the ideas or the direction of their understanding. Some examples follow:

Example: Excerpt from NA fourth grader retelling Salt Boy

- S: He tried to learn how to rope:
 R: Who tried to learn how to rope?
 S: The black horse.
 R: The black horse was going to rope?
 S: Yeah.
 R: Who was the black horse going to rope?
 S: Salt Boy.
 R: Salt Boy. The horse was going to rope the boy?
 S: No. The boy was going to rope the horse.

Example: Excerpt from HS fourth grader retelling The Royal Race

- S: He went inside one house and Liloa grabbed him and pulled him down, and he said, 'Who are you?' and Umi said that I am your son. No - yeah - no, um Umi said, yeah, Umi said, Liloa is his son. So, there was some race; they would walk and they had drums, and Liloa was in the front of the king. . . And then Liloa, um, no, not Liloa but Umi, got mad.

Summary

Retellings give readers the opportunity to tell what they wish to about what they remember about the stories. It gives researchers more information about comprehension than is available through traditional methods of questioning or standardized measures of comprehension. At first we were surprised at the amount of information provided through

retellings. Often when we play these retellings for others they believe we have selected some special readers to present. Traditional scores on standardized tests or number of errors per hundred words place most of the readers in this study below grade level or at frustrational reading levels. Their retellings suggest, however, that readers often read better than traditional measures suggest.

Summary of Findings

This analysis has explored only a few of the possible new avenues to gaining information about comprehension.

The following is a list of the most significant statements about comprehension which we have extracted from the analyses of these subjects. They will need verification through further research in comprehension and greater depth analysis of readers' retellings.

1. Retelling is one useful method to gain insights into a reader's comprehension.
2. Regardless of number or type of miscues, readers are usually able to recount the major characters and events in stories that they read.
3. In our study, stories which are relevant to the contemporary life of the readers usually produced higher retelling scores than the general stories.
4. Readers tend to retell stories sequentially and in great detail, although there are variations depending on the age and cultural background of the reader and the questioning strategies of the teacher or researcher.
5. Readers develop concepts about unfamiliar or unknown language or concepts through the cumulative development of the story if the author provides sufficient redundant cues to the readers.
6. The readers do not need to be able to pronounce the surface phonological language which relate to these concepts in order to develop their understanding.
7. Knowledge and background experiences readers bring to their reading is highly related to their ability to reconstruct meaning and comprehend.
8. Although many readers provide plot statements spontaneously in their retelling, theme statements are not provided by readers without direct questioning.

9. Misconceptions are developed through the same process that appropriate concepts are.
10. Both the quantitative retelling scores and the qualitative descriptions of the retelling provide evidence that readers read better than the subject's standardized test scores or a traditional error count would reveal.

CHAPTER VIII
READING INSTRUCTION FOR AMERICAN CHILDREN WITH DIVERSE LANGUAGE BACKGROUNDS:
IMPLICATIONS OF THE RESEARCH FOR CURRICULUM AND INSTRUCTION

In this chapter we'll discuss the implications of the research for the classroom. Any research findings must be put into the total context of reality before relevant useful implication can be drawn and applications can be made. So we'll begin with an overview of current classroom reality.

Issues and Problems

Our schools are disproportionately unsuccessful in bringing to literacy linguistic minorities such as the eight populations in this study. In the past a variety of terms have been applied to such populations; culturally deprived, disadvantaged, different (take your choice) linguistically deprived, disadvantaged, different (again take your choice). The poor in our society are likely to belong to low-status linguistic minorities and so the variety of terms used to refer to socio-economic status also apply to our subjects. A pattern emerges of interrelationships of language (including dialect), culture, social and economic status, ethnicity, race, and life style which is seen as characterizing low achievement in literacy and is sometimes treated as causal.

Furthermore, issues of language difference, social attitude toward language, language teaching and language learning, politics, economics, psychology, and law become blurred and confused in examining the reality of literacy for linguistic minorities.

Often, also, the characteristics of bilingual speakers and low-status dialect speakers are confused by educators. That relates to a general tendency to treat low status language forms as non-language. Often one hears bi-lingual children referred to as being non-functional in either language because they speak low-status forms of both languages. Non-performance on tests is used as evidence to support this view.

Another problem is confusion in the literature, and in the minds of teachers, of receptive and productive language. Teachers assume that what a child can say is an indication of what he/she can understand. What gets lost is that often children in linguistic minorities can understand dialects they can't produce and children acquiring English as a second language often understand much more in listening and reading than they can say or write.

What all this adds up to is that current practice in American classrooms for developing literacy is muddled in confusion, misconception and misinformation. Our research can't deal with all the problems. It wasn't intended to do so. But it can shed some light on the linguistic factors involved, it can relate those to some of the cultural factors and it can offer some input for pedagogical decision making.

General Implications

In our research journey into our eight linguistic minority groups we met no linguistic incompetents. Over and over we found children better able to read than their test scores would have predicted. Not just reading tests, but IQ tests as well, turned out to be worse than useless in assessing our subjects. Cultural inappropriateness, language mismatch, irrelevance of school tasks, experiential diversity, all are factors in this. If an Arab immigrant child three months in America is tested in September what can be predicted about his performance in reading in January or May? Why should a rural child in Tennessee or Maine understand the references of a test writer in Palo Alto, Iowa city, Chicago or Boston?

We found all our subjects acting like language users. They talked to us, mostly understood us and mostly were understood by us. With the dialect speakers we had some occasional mismatches of dialect between us and them. "Was it ha'd?" said a researcher from Maine to a boy from a Tennessee "Holler." "What?" He said. Two tries later she said, "Was it difficult?", "Oh, no, ma'am," he said. A few minutes later it was she who didn't understand his reference to the "lot bub" until he showed her the picture in the text of the flash bulb on the camera.

With our second language speakers of English we had some misunderstandings also. Words like like and feel sometimes had fewer meanings for them. Sometimes they had trouble telling us in English what they had understood in their reading. Sometimes we had trouble understanding them. Sometimes cultural barriers made it hard for us to find out what they had understood.

Still our evidence is overwhelming that all our subjects are linguistically competent in at least one language and growing in their competence in making sense from printed English. They are all acquiring the same process. In doing so they make miscues which, while influenced by their language backgrounds basically reflect, as with all readers their efficiency and effectiveness in making sense from printed English. We see the evidence of their receptive control of the language of the texts outstripping the ability they have to discuss what they read.

Implications for speakers of low status English dialects:

Our subjects are mostly rural and less in touch with dialects of English other than their own than urban children are. They still showed control of the text language in the receptive reading process. Their most notable evidence of dialect influence in their reading was phonological. Morphological influences, particularly on grammatical inflectional suffixes were particularly notable among Mississippi Black, and Hawaiian Pidgin readers. All showed some influence of the syntax of their dialect but examples were infrequent in reading. Retelling showed a wider range of dialect influences. Since their reading is always closer to the text than their retelling we get some of the evidence for differences in their receptive and productive dialect range. There's no evidence of dialect miscues affecting comprehension or of dialect factors which would interfere with learning to read. The possible exception, which we have discussed in relation to past studies, is the effect of teacher rejection of pupil dialect. (Goodman and Buck, 1973).

Implications for Bilingual Subjects

We've discussed in Chapters III and VI the considerable differences within and between our bilingual populations. There are major differences between largely stable bilingual populations such as our Texas-Spanish group, who speak both languages and act in reading English like other English speakers and our Arabic group, immigrants to an urban community and in various stages of transition in acquiring English. This diversity has to be one of the most salient features of bilingual readers. If they are fluent speakers of English they will act like native speakers in reading English. If they are monolingual speakers of another language they will be unable to respond to English writing except as it relates to another language in which they may be literate or as nonsense. But as they become bilingual the readers will show this in their reading as they do in their speech. Their reading will reflect not only their first language but the extent to which they are coming to control English phonology, grammar, orthography, lexicon and idiom. If they are learning to read English while they are learning to speak and understand spoken English their reading will both reflect and contribute to their growing control. In general they will use their focus on the meaning of written English as a means of deriving its syntactic rules and its lexicon. That this happens while reading should be no surprise; it's the basic way that language is learned. What we can perhaps add to this commonly accepted understanding is that people learn languages through reading and writing them as well as through listening to and speaking them.

If bilingual speakers are literate in another language their development of literacy in English will be easier than for people not literate in any language; and further their control of English will be speeded as a result of their rapid progress in becoming literate in English. All this assumes that oral and written English are equally needed and functional, and that the opportunity to use both is present. There are people who learn English as a second language who don't learn to read and write English. There are also people, mostly students in non-English speaking countries, who learn to read and write English but not speak it. In both cases this is a function of the uses of English that the learner needs the most. Teachers will need to keep this in mind in planning instruction, supporting learning, and judging linguistic competence.

Implications for Teachers

Everything we've seen in this study points to the need for teachers to be informed about the nature of the unitary reading process. Only if teachers understand how this process works can they see the order in the miscues of their pupils and tell sense from chaos, strength from weakness. Only then can they see how the complex process is being affected by the language background of the pupils and their relative stage of development in acquiring English.

Within this understanding of the reading process it becomes possible to monitor the process while at the same time maintaining a sensitivity to dialect influences of native speakers of English, and the development of English in bilingual pupils. Teachers do of course need to be aware of the language backgrounds of their pupils whether their home language is a dialect of English or another language. They need to relate the language of the learners to their cultures and be sensitive to cultural constraints on how language may be used.

All teachers, and particularly teachers of children from linguistic minorities need to know a good deal about language and language variation. But knowledge is not enough. Teacher attitudes are vital. Teachers who believe that some languages are intrinsically better than others for thinking, learning or expression will have difficulty being scholarly and objective about the developing language of their pupils and the use they make of it. Teachers who believe that some dialects represent ignorance and vulgarity, will have trouble finding sense in what pupils say or read in those dialects. Teachers with such attitudes will mistake strength for weakness. They will interrupt children to "correct" them causing the pupils to be confused when they are comprehending and undermining the willingness of the pupils to take necessary risks.

Good attitudes toward language difference are more important than specific linguistic knowledge. Teachers do not need to be dialectologists to "tune to" and accept children's dialect. It's more important that teachers strive to comprehend the dialect of their pupils than that they are able to describe it from a technical, linguistic stand point. It's more important that teachers are accepting of the language, culture, and development of bi-lingual pupils than that they can use contrastive analysis to describe the two languages involved. Teachers who are themselves fluent in the dialect and/or language of the pupils will be at an advantage as compared to those who are not. But such fluency does not guarantee positive attitudes toward children and their language. There is the danger that such teachers may reject their own linguistic heritage and in the process reject that of the children.

A key attitude teachers of children in linguistic minorities must maintain is treating all responses as legitimate. That's an essential lesson of miscue analysis underscored in this study. Everything is happening for reasons which reflect the linguistic background, strength, and growth of pupils. The teaching of reading and language has been plagued by clinical deficiency views. Characteristics of learners are treated as potential causes for failure in learning. Deviations from expected behavior are seen as symptoms and treatments are focussed on getting rid of the symptoms. The pedagogical question must shift from "how do I get these pupils to stop doing these things," deleting inflectional suffixes such as ed for example, to "why are they doing these things and what can I learn from what they are doing." It's particularly unfortunate if language differences which show in reading are treated as symptoms of reading and language disorders.

Teacher education, both for pre-service and in-service teachers, must place major emphasis on building knowledge and attitudes about language and about language difference. Getting teachers and future teachers involved with actual miscue analysis of pupils from linguistic minorities serves several purposes: It provides a reality base for developing concepts of linguistics, psycholinguistics, and sociolinguistics particularly as they relate to reading. It confronts the beliefs and attitudes about language difference and language learning held by teachers. That can't guarantee that their attitudes will change but it can assure that they will examine their attitudes in the face of the real performance of real pupils. Experience in miscue analysis also provides the teacher with a framework and a tool for monitoring children's reading. That's terribly important because published programs are unlikely to make much allowance for linguistic diversity or provide much guidance for teachers on how to deal with such diversity in their classrooms.

All teachers need courses that deal with language and learning. Teachers of linguistic minorities especially need such courses. But those courses must help teachers to apply the concepts to the realities of the classroom.

Issues in reading instruction for speakers of low-status dialects

A key issue in reading instruction for low-status dialect speakers is whether special methods and materials are required because of problems they may have with reading standard English. In our earlier study (Goodman & Burke 1973) we concluded that urban Black children have receptive control over the language of books. We concluded that special materials in Black English are not necessary. We must conclude from this study that special materials are not needed for any of our low-status dialect groups. All of them can handle receptively, the language of the books.

Neither is special methodology needed. Reading and learning to read are not different for different dialect groups of American children. The real key, as we have said, is sensitivity to the language and culture of the learners on the part of the teacher. With that must be a flexibility in the classroom that allows for relevance to the individual and his or her culture, interests, and language.

Some particular features of our dialect groups illustrate some of the things teachers need to be sensitive to.

Downeast Maine

Our subjects show an intonation pattern which characterizes their speech which might be unfamiliar to outsiders. Their phonology has a few outstanding features: "r-lessness" in some situations with an "intrusive r" in others, particularly on words ending with vowels before words starting with vowels. In their retelling some syntactic features show, particularly use of verb irregulars, we was, he come. Finding relevant material for this group isn't easy.

Appalachian White

Like our Main subjects these children speak a dialect that maintains some old forms which have disappeared from other American dialects. It becomes hit, Mrs. is "Mizrus." They also vary some irregular verbs. They tend to use no s on plurals with numbers e.g. ten mile. Their intonation and phonology will be unfamiliar to outsiders too; particularly vowels may surprise those not familiar. Many of our Appalachian subjects are great retellers probably reflecting a story telling tradition.

Mississippi Black

Our rural Black subjects speak a dialect with much in common with our urban Black subjects from past studies. They tend not to inflect nouns and verbs. Particularly ed tends to be deleted. Like the other dialects they have unique intonation and phonology which will be difficult for unfamiliar outsiders to handle. Other syntactic features and lexical differences show more in speech than reading.

All of these groups above are rural-small town kids who differentiate themselves, their speech, and culture as country in contrast to city. When they are moved to the city by parents seeking jobs they are aware of linguistic and cultural rejection and feel ill at ease in the noise, dirt, and confusion of the big city. Particularly Appalachian subjects shared their feelings with us about the greater freedom they think they have in the country.

Hawaiian Pidgin

The Pidgin speakers speak a creole, technically not a pidgin, since it is their home language. Their dialect basically uses no inflections. Like other dialect groups, though, they are not 100% consistent in deleting dialect suffixes either in oral reading or speaking. Their intonation and phonology are not likely to be familiar to mainlanders. Their lexicon also is more divergent than any of the other dialect groups, but that shows more in retelling than in reading. The interplay between Pidgin and Hawaiian standard English is evident.

Issues in Reading for Bilingual Speakers

Most of the issues in reading for bilingual populations center around whether to initiate reading instruction in the home language, English or both. Our research does not directly involve that issue since our subjects only read in English.

What we can say is that all of our subjects, average for their grades and populations, could read in English to some extent. All certainly control English to some extent. As we've indicated earlier we find growth in reading and growth in language coming together. Whether any of our populations would profit from learning to read in their first language we can't say. Some of our Arabic group have had some instruction in Arabic, some in Arabic and French in their homelands. Since the Arabic would be classic Arabic we can't call that their home language.

Nothing we have found contradicts the concept that it's easier to learn to read a language already spoken than a new one. Some things we've observed, though, can relate to this decision.

- (a) Each population has different experiences and different opportunity to develop a functional need for literacy in their native language. Our Texas-Spanish group sees material in both languages in their homes and communities. Some of our Arabic group may see their parents reading Arabic newspapers and books, writing and reading letters in Arabic. But the larger community is an English language world. Our Samoan group are similar to the Arabic with the exception that literacy in Samoan may be a church related phenomenon. Navajo children seldom see written Navajo except in school. Both Samoan and Navajo cultures have important oral traditions. Navajo elders may even reject the desirability of written Navajo.

- (b) Similarly, the need and use for literacy in English may vary. We're aware that in all four communities there is some feeling among parents that schools are the places where kids learn English and general American culture.
- (c) The methodology used for teaching literacy in the native language is often simplistic since little research has been done either on reading in languages such as Navajo, Samoan, Arabic, or even Spanish or on instructional methodology in any of those languages. Methods, materials, and curricula are likely to be taken for granted. That makes it difficult to evaluate success or failure in programs which begin with instruction in reading the home language.

Studies completed and currently in progress are showing that reading in languages other than English employ the same underlying reading process. Reading in Spanish is not different than reading in English. That argues for common methodologies for effective reading development across languages. That doesn't mean that the characteristics of the language or its orthography are irrelevant to instruction. It does mean that the process we describe in Chapter III is common across languages; a corollary of that is that no language is harder or easier to learn to read than any other.

It seems to us that decisions about which language(s) to use in initial reading instruction must include factors of culture, value, experience, community and family attitudes. Reading, in whatever language, will be easy to learn if the learners have real functional needs for it and hard to learn if they do not.

Here are some characteristics of each second language group which teachers need to be sensitive to:

Texas Spanish

Our subjects from Southeast Texas are truly bilingual. Their English shows some Spanish influence, but it is a stable form of English spoken by their bilingual community. It has an intonation and phonology with some Spanish influence, but some unique characteristics of its own too. Their English also shows some kinship to the dialect of non-bilinguals in Southeast Texas.

Arabic

Transition is the key word for our Arabic subjects. They show varied influences of their home dialects of Arabic on their English and varying degrees of control of English. We find a b/p influence in their oral reading and retellings that results from those phonemes being undifferentiated in Arabic. Our Arabic readers often have trouble saying in English what they've understood.

Hawaiian Samoan

Their first language is Samoan, and the dialect of English they're learning is Hawaiian Pidgin. Our average second graders were not able to read the standard story which all other groups (except Navajo) read. Whether that reflects coming to school with little English, cultural adjustments to school, or other factors, we can't tell. The fourth and sixth graders could handle the standard stories for the grade. Teachers familiar with Hawaiian Pidgin could differentiate Pidgin and Samoan influences. Others would need to listen to the children especially carefully and avoid hasty decisions about their miscues.

Navajo

Elsewhere (Chapter VI) we've discussed the cultural factors that make Navajo children willing to read to us but reluctant to discuss what they've read. These are clearly our subjects with the most influence of their first language. But we always were left feeling we hadn't quite learned how much our subjects had comprehended. Our Navajo second graders also found the standard story too difficult. Successful teachers of Navajo children will need special sensitivity to the cultural constraints on their language performance. They will also need great patience.

Curriculum: Reading as Cause and Effect

A common view among educational authorities and funding agencies is that failure to learn to read results from failure to be taught reading and that reading failure is the cause of general academic failure. This view leads to intensive focus on teaching reading often at the exclusion of all else, often without concern for the content of reading, its function or purpose, often with "no nonsense, back to basics" methods, often overlooking the personal-cultural constraints on the pupils. If kids learn to read, all else will follow. Reading is viewed as a skill or set of skills to be drilled until mastered.

What our research shows is that none of the linguistic minority subjects we studied lack skills. They can attack words, sound out words they don't know. If there is a problem any of our subjects show, it is making sense of what they read. Their response to literacy instruction is part of their general response to school. If school is relevant, if its curriculum and goals are consistent with the functional needs of the pupils, if it accepts their language and culture and builds on it, then children will respond to it and grow. But if the school is irrelevant and insensitive, the pupils will only make whatever minimal accommodation they can to its demands.

Literacy is language. All language learning, to prosper, must be functional for the learner at the time of learning. All of our subjects know one or more forms of one or more languages well. They have

no difficulty learning language. If reading and writing are functional to them, they will learn them easily and well. Literacy can only be relevant and functional in the context of a relevant and functional curriculum. It simply is not possible to treat literacy as an isolated set of skills and expect children to learn.

If children from linguistic minorities are failing to achieve well in reading, that's evidence that they have not come to view literacy as necessary and functional, and it is also evidence that the curriculum in the school is not in tune with the children.

The ideal curriculum for teaching children of linguistic minorities to read and write is one which builds on what they know, which expands on their language, culture, interests, and common experiences.

Such a curriculum needs to be based on understanding of linguistic and cultural reality of the community. Ethnographic research is needed to provide a sound knowledge base of this reality.

Reading and writing need to be part of a general language arts curriculum relevant to this reality. The tasks of reading and writing need to relate directly to children's experiences, needs and values. We learned in this study that there is a dearth of relevant reading materials, particularly for some linguistic minorities (see Chapter VII). Even materials dealing with the group and their culture may present them from an outsider's viewpoint as untrue stereotypes.

Motivation for literacy must be built on the base of personal and social language functions. Literacy needs to be an extension of language development within these developing functions.

We suspect that in the language arts curriculum of all our subjects, there is too much concern for form without function, too much tradition and too little relevance, too much focus on skill and not enough on comprehension, too much of making kids adapt to the curriculum rather than adapting the curriculum to the kids. That's not good for any children. For linguistic minority children, it can be tragic. What is needed is some boldly innovative curricula designed for Navajo children, Hawaiian Samoan children -- in fact, for all eight of our groups.

Materials

Literacy programs for linguistic minorities ought to draw heavily on written language in the environment. They ought to use language experience extensively. Teachers ought to create reading materials with their pupils. The classroom should become a literate environment in which functional written language surrounds the learners. Within this, what is needed is a wide range of printed material that includes stories, printed directions, store catalogues, cartons, boxes and other advertising, newspapers and texts. The focus should be on relevance and functional use of written language.

Published books and texts can be a part of such reading programs though schools with large percentages of children from cultural and linguistic minorities may have to avoid basal readers as insufficiently relevant for their children or at least adapt them, rewriting some parts and deleting others.

Irrelevant skills programs should be particularly avoided. They shift the focus away from meaningful use, are unlikely to be suited to the language or dialect of the learner, and fragment language into hard-to-learn abstraction.

All education has the goal of expanding and broadening the perspectives of the learners. But all must begin with the learners where they are. And so it must be with linguistic minorities. There are strengths and experiences within their communities which must be appreciated and become a foundation upon which curriculum is built.

APPENDIX A

GENERAL CRITERIA FOR SELECTION OF READING MATERIAL

Four main criteria are used in choosing material: (1) the selection must be one which the reader has not previously seen or heard; (2) it must be sufficiently difficult to generate a moderate number of reader miscues; (3) it must be of sufficient length to insure the availability of syntactic and semantic context to the reader; and (4) the selection must be a semantically complete unit. (K. S. Goodman and C. L. Burke, Appendix for Theoretically Based Studies of Patterns of Miscues in Oral Reading Performance, April, 1973, p. 2.)

The use of "new" material helps insure that the situation is, in fact, one of reading and not the result of rehearsal or memorization.

The story should generate a minimum of approximately fifty miscues during a twenty to forty minute reading session to be sufficiently difficult. Too few miscues will not provide sufficient evidence of the reader's use of the reading process. There is a great deal more leeway concerning any maximum number of miscues generated. A large number of miscues should not cause the researcher to abandon the material unless the reader becomes agitated and is unable to continue independently.

While the materials should be short enough to be read at one session, they must also be long enough to provide sufficient syntactic and semantic context for processing. Twenty minutes is an average reading time for the primary school reader, with reading time going up to approximately forty minutes for the high school and adult reader. Although, for the purpose of this research, fiction is used, fiction or non-fiction can be used. The choice of specific material will be based on the needs and concerns of any specific piece of research. Factors to be taken into account when selecting material include: the development of theme and plot, the clarity and complexity of the concepts involved, the language and experiential background of the research subject(s).

A study by Menosky (1971) has indicated that the quality of miscues changes as the reader progresses past the initial portion of text. Miscues made on the first 200 words of text produce a different reader profile than those associated with any given quarter of text examined. After this initial portion, there is an increase in semantic and syntactic acceptability with an accompanying drop in graphic and phonemic similarity on the sections following the initial portion. During the initial portion of text readers must depend heavily on their own background and language structure. Information on the author's use of structure and story related information become increasingly available to the readers as the reading progresses. Full use of readers' strategies depends upon the availability of a fully developed syntactic and semantic context. Because of all of these considerations, a text should contain a minimum of approximately 500 words.

Because the quality of a reader's strategies alter with the availability of semantic context, concern should be given to the semantic unity of the material. In general, fiction format material should have a complete theme, plot, and storyline. Non-fiction material should adequately develop a concept or fully describe an act.

When the parameters of time and semantic unity are both considered, it frequently becomes necessary to provide a sequence of two or three related stories for younger readers and to use short stories, chapters, magazine or journal articles for older readers.

While adequate material selection is basic to the successful use of miscue analysis it is tied to a series of partially indeterminate factors. It is, therefore, usually helpful to have two or three selections of varying difficulty and/or content available for use. When working with average elementary school age children, one "rule of thumb" is to make the initial material selection one grade level above the reader's assigned grade.

APPENDIX B

GUIDE QUESTIONS TO AID STORY RETELLING

Before the Reading

1. These guide questions presuppose that the researcher or teacher has provided a comfortable, warm environment for the subjects. This may be accomplished by asking students about their pets or hobbies. Tell them a little about yourself, too.
2. Before the subjects begin to read the story, inform them that they are to be concerned with understanding the story. Say: "After you finish reading the story, I will want you to tell me about it." Or, "I'll be asking you about the story after you finish your reading."

After the Reading

1. Please remember that this is a guide. Get to know it. Have the ideas and suggestions become part of your interaction with students. DO NOT USE THIS AS A SCRIPT.
2. As soon as subjects finish reading ask them to close their books.

Unaided Retelling

1. Without permitting them to use the book as an aid say: "Tell me everything you remember about the story." Do not interrupt or interject any questions until the readers have completed their initial retelling.
2. During the retelling you may take notes or check off items readers relate on the Story Outline.

Aided Retelling

1. Use the Story Outline to help you elicit further information or to remind you which open-ended questions might get at aspects of the story which the subjects have not mentioned. Do not, however, use the outline as a check sheet for correct answers.
2. Drawing only on the information the readers give, ask additional open-ended questions to stimulate thinking and to gather more information.

Ask: Tell me more about _____
character mentioned by subject

or

After _____ did _____
character mentioned by subject event mentioned by

_____ what happened next?
subject

- or Why do you think _____ did that?
character mentioned by subject
- or Why do you think _____ happened?
event mentioned by subject
- or How do you think _____ happened?
event mentioned by subject

NOTE: ALWAYS USE THE READER'S PRONUNCIATION OF NAMES OR NON-WORDS WHEN YOU ASK QUESTIONS ABOUT THOSE ITEMS.

3. Follow-up most reader's statements with: Why do you think so?

or

What in the story made you think so?

4. When all the subject's information has been used to further the retelling, use open-ended questions to obtain additional retelling information.

Ask: Who else was in the story?

Provide time for response and follow-up with:

Tell me about _____.
name mentioned by subject

Ask: Where did the story take place?

After time for response follow-up with:

Tell me more about _____.
place mentioned by subject

5. Whenever the subjects use non-words allow them to finish their comments or answers and then ask a question about the non-word. Try to place the non-word in a sentence context or summarize the situation in which the subject used the non-word.

Ask: Remember when you said _____ used a
character named by subject

_____ to _____? Can you explain
non-word event mentioned by subject

that to me?

What did you mean by that?

6. If the subjects provide responses which seem to be inappropriate, ask other questions in relation to that particular item at some later time during the retelling. This will provide evidence concerning whether the subjects misunderstand or if they have just confused their oral production.

Questions for Theme and Plot

1. Now that you have told me so much about the story can you tell me what the whole story was about in a few words or in short form?
2. Was there anything that you thought wouldn't work out or that you found yourself worrying or wondering about while you were reading?
3. Why do you think the author wanted to write this story?
4. Is this story similar to any other story that you have read? In what ways is it similar? Different?
5. Does _____ remind you of anyone else you know?
character mentioned by subject
6. Have you ever known _____ to happen to anyone else?
event mentioned by subject
7. When _____ did that, what did you think would
character mentioned by subject
happen?
8. What was the author trying to teach you when he/she wrote this story?

or

What was the moral to the story? (Subjects may not know the use of the term "moral" but if they have been taught about morals they will respond with interesting answers.)

Questions for Subtleties

1. Using an appropriate adjective (happy, sad, etc.) which relates to aspects of the retelling or to the subject's reactions that you observed when he was reading, ask:

Was there something in the story that made you feel happy? sad? that was funny? that scared you? seemed strange or unusual?

Follow this with:

What was it?

or

What made you feel that way?

2. Using an appropriate verb (cry, laugh) which relates to aspects of the retelling or to the subjects' reactions that you observed when they were reading, ask:

Was there a part in the story that made you want to cry? laugh?

Questions for Specific Concepts, Generalizations or Ideas

Whenever: 1) the students miscue on the same word or phrase a few times; or 2) if concepts or vocabulary items may not have been understood after the retelling; or 3) if there are some other concepts, words or phrases which you question in terms of the subjects' understanding, ask specifically about these:

1. Were there any words that you had difficulty with? Find it or them for me. What do you think it means?
2. You said _____
non-word or real word or phrase you do not think the reader
_____. What do you think that means?
knows
3. Did you ever hear this word before?
4. Did you know what this was before or did you learn it in this story?
5. Did it mean something else to you before you read this story?
6. What in the story helped you know or understand the word?

Questions to elicit Evaluation or Judgment

1. Is there anything you would have changed in the story?
2. Did you like the story? Why or why not?
3. Would you have changed the ending?
4. What did you think about the part where _____?
major event mentioned by subject
5. Did you think _____ was right or wrong
major character subject has mentioned
when she/he _____?
major event mentioned by subject

Questions to Get at Cultural Relevancy

With stories which are chosen for cultural relevancy, try to get the subject's awareness:

1. Was there anything about the story that didn't make sense?
2. Did the people in the story act like or talk like people you know?
3. Do you think that _____ people or kids act or talk
mention the cultural group
like the people in the story? Why or why not?
4. Do you feel that _____ is the way it is described in the story?
specific setting

Avoid . . . Avoid . . . Avoid . . . Avoid . . . Avoid . . . Avoid . . . Avoid

1. Giving subjects two or three questions to deal with at a time.
2. Taking "I don't know" for an answer. Try to rephrase the questions and get at the information another way.
3. Giving information in your questions.
4. Changing the subject or direction of the retelling. Permit the subjects to completely develop topic before you switch to another.
5. Hurrying. Be patient and give the subjects time to think and respond. Silence and waiting patiently for response is an excellent technique of questioning.
6. Asking closed questions which permit single word answers or lead subjects down the path you want them to take.

APPENDIX C

PREPARING AND EVALUATING RETELLING

1. Listen to the taped retelling and write or type everything said by both the student and the researcher or teacher. Label the top of the transcript and the Retelling Score Sheet with the student's name.
 - a. Write everything just as you hear it. Use standardized spelling for all phonological dialect differences.

- b. If sections of the tape sound like garbles, mark with question mark. Try to gain at least syntactic information from the garble if possible by using the subject's intonation.

Example:

?

The boys glubet down the stairs

- c. Mark all uh huhs and mmns as negative or positive using intonation as the guide.

Example: Uh huh (no)

Surface Retelling Score

1. Listen to the retelling and follow the written or types script as you score. The intonation of a student's retelling provides information about meaning. There are times when a written statement can be ambiguous but is quickly clarified by the reader's intonation pattern.
2. Divide all information between character development and events. One hundred (100) points can be divided between these two items depending on their significance.
 - a. Character Development. (Usually 40 points) Read through the script and check off all the characters and items related to character development. Underline the items which the subject has referred to. The subject does not have to use the exact words on the outline. Synonyms or inferences about subjects are perfectly acceptable. (Divide the points among the characters. Give greater weight to the major characters.)
 - b. Events. (Usually 60 points) Read through the script again and check off all events by underlining the items produced during the retelling. If the student mentions an event which has not been listed, list it on the outline and score this event as equal to an event of similar significance. (Divide the points under events by the number of events. Give greater weight to the more significant events.)
 - c. Extra Information. Give students credit for any subtleties or specifics which they mention even if they are not listed in the outline. If the subtlety can be verified by surface story information, it should be given a point score and counted as surface retelling. Add up all the points and record in appropriate place on the Retelling Score Sheet.

Recording Inferential Information

This information cannot be point scored but should be evaluated because of their significance.

1. Theme. Reread the script to look for theme or plot statements. Any plausible theme-like statement (abstracting aspects of the story to a universal) should be recorded on the Retelling Score Sheet whether or not it conforms to the theme listed on the Retelling Format.
2. Plot. The plot statement must be restatement or overall statement of the story. Events mentioned as part of the plot statement can be credited under events. List any plot-like statement on the Retelling Score Sheet whether or not it conforms to the one listed on the Retelling Format.
3. Inferences. Any information which the subject retells which is inferred from the reading and appropriate to the story is listed on the Retelling Score Sheet.
4. Misconceptions. All statements which indicate that the subjects used information from the story to come up with misinformation or misconceptions should be recorded on the Retelling Score Sheet.

The sheet used to record the scores and other pertinent information follows.

APPENDIX D
RETELLING SCORE SHEET

SUBJECT NAME _____ SUBJECT NO. _____

STORY NAME _____ STORY # _____ RETELLING SCORE _____

PLOT STATEMENT(S) _____

THEME STATEMENT(S) _____

INFERENCE(S) _____

MISCONCEPTION(S) _____

APPENDIX E
READING MISCUE RESEARCH - CODING SHEET
SHORT FORM

- 46 Correction CRECT
 0 no
 1 yes
 2 abandons correct
 9 unsuccessful
- 47 Dialect Involved DILCT
 0 no
 1 yes
 2 idiolect (M.A.T.)
 3 super correct (M.A.T.)
 4 secondary involvement in miscue (sub-studies)
 5 foreign language influence (M.A.T.)
 9 doubtful
- 48* Graphic GRAPH
 blank
 0 no similarity
 1 letters in common
 2 any key letter in common or the middle Add 1 for
 portions similar configuration
 3 end (0-6)
 4 beginning
 5 beginning, middle
 6 beginning, end/middle, end
 7 beginning, middle, end or reversals
 of three letters or more
 8 single grapheme difference or
 reversals of two letters or all
 but punctuation
 9 homographs
- 49* Phonemic PHØNM
 blank
 0 no similarity
 1 some common sounds
 2 single key elements in common
 3 final portions in common
 4 common beginning
 5 common beginning and middle portions
 6 common beginning, and/middle, end
 7 beginning, middle and end similar
 8 differ in single vowel or consonant
 or morphophonemic or intonation
 shift (including schwa)
 9 homophones

* Category involves use of both blanks and zeros.

- 50 Allologs ALLØG
 0 no
 1 contraction/full
 2 full/contraction
 3 contraction not rep. in print
 4 long and short forms of syllable deletion/insertion
 5 shift to idiomatic form
 6 shift from idiomatic form
 7 misarticulation
- 51 Syntactic Acceptability SYNAC
 0 no
 1 only with prior
 2 only with after
 3 in sentence
 4 in total passage
 5 in sentence except for other miscues
 6 in passage except for other miscues
- 52 Semantic Acceptability SEMAC
 (This category can not be scored higher than 51)
 0 no
 1 only with prior
 2 only with after
 3 in sentence
 4 in total passage
 5 in sentence except for other miscues
 6 in passage except for other miscues
- 53* Transformation TRANS
 0 no transformation
 1 through different deep structures
 2 same deep structure - through alternate or compulsory rules
 3 alternate options
 4 deep structure lost or garbled (51 marked 0)
 9 doubtful
- 54* Syntax SYNTAX (mark when 51 is 3 or 4)
 blank (blank when 51 is 0, 1, 2)
 0 unrelated
 1 single element in common
 2 key element in common
 3 major change in sentence pattern
 4 minor change in sentence pattern
 5 a major change within structure of the phrase
 6 minor change within structure of phrase
 7 change in person, tense or number
 8 change in choice of function word or other minor shift
 9 unchanged

- 55* Semantic SMANT (mark when 52 is 3 or 4)
 blank (blank when 52 is 0, 1, 2)
 0 completely anomalous to rest of story
 1 change or loss affecting plot in basic sense
 or creates major anomalies
 2 change or loss involving key aspects or
 seriously interfering with sub-plots
 3 change or loss resulting in inconsistency of
 major incident, minor character or major
 aspect of sequence
 4 change or loss resulting in inconsistency of
 minor incident, minor character or minor
 aspect of sequence
 5 change or loss of aspect which is significant
 but does not create inconsistencies
 6 change or loss of unimportant detail
 7 change in person, tense, number, comparative,
 etc. which is noncritical
 8 slight change in connotation/or similar name
 which doesn't confuse cast
 9 no change
- 56 Intonation INTØN
 0 no
 7 yes
- 57 Sub morphemic Level (SUBMR (Not used in current study)
- 58-59 Bound and Combined Morpheme BNDMR
- | | |
|----------------|-----------------------------|
| 0 no | 0 no |
| 1 substitution | 1 inflectional suffix |
| 2 insertion | 2 non-inflected form |
| 3 omission | 3 contractional suffix |
| 4 reversal | 4 derivational suffix |
| | 5 prefix |
| | 6 miscue across affix types |
| | 7 miscue involving base |

60-61	Word and Free Morpheme	WORDL	
0	no	0	no
1	substitution	1	multiple morpheme word (O.R.) for multiple word (E.R.)
2	insertion	2	single morpheme word (O.R.) for single morpheme word (E.R.)
3	omission	3	multiple morpheme word (O.R.) for single morpheme word (E.R.)
4	reversal	4	single morpheme word (O.R.) for multiple morpheme word (E.R.)
		5	word or free morpheme in longer word
		6	word in compound
		7	near-word
		8	dialect alternative
62	Phrase	PHRSL	(Not used in current study)
63	Clause	CLAUS	(Not used in current study)
65-69*	Grammatical Category and Surface Structure of O.R.	GFØBR	
	blank		
	(65-66 Grammatical Category)	(67-68 Grammatical Filler)	(69 Grammatical Function)
1	noun	0	0
		1	common
		2	proper
		3	pronoun
		4	verb derived
		5	phrasal unit
		6	word as word name
		7	quantifiers
		8	adjective in noun position
			1 subject
			2 direct object
			3 indirect object
			4 appositive
			5 address
			6 noun in adverbial phrase or other prepositional phrase
			7 subject complement
			8 object complement
			9 intensification
2	verb	0	0
		1	be forms
		2	transitive
		3	intransitive
		4	infinitive
		5	pro-verbs
			1 active
			2 passive
			3 imperative
			4 subjunctive

3 Noun Modifier	0		0
	1	adjective	1 subject complement
	2	noun adjunct	2 embedded
	3	verb derived	3 object complement
	4	possessive noun	
	5	possessive pronoun	
	6	titles	
	7	adverbial	
	8	ordinal number	
	9	phrasal unit	
4 Verb Modifier	0		0
	1	pro-adverb	1 place
	2	adverb	2 manner
	3	noun form	3 time
			4 reason
			5 other
5 Function Word	0		0
	1	noun marker	
	2	verb marker	
	3	verb particle	
	4	question marker	
	5	clause marker	
	6	phrase marker	
	7	intensifier	
	8	conjunction	
	9	negative	
	10	quantifier	
	11	other	
	12	adverb particle	
6 Indeterminate	0		0
	1	interjection	
	2	words out of syntactic context	
	3	defies classification/ambiguous	
	4	greetings	
7 Contractions		(left)	(right)
	1	pronoun	1 verb marker
	2	verb marker	2 be
	3	be	3 trans verb (have)
	4	let	4 negative
	5	question marker/ clause marker	5 pronoun (us)
	6	it/there	
	7	adverb	
	8	noun	
	9	transitive verb (have)	

When the E.R. and the O.R. are the same grammatical function, 65-69 can be coded 99999.

70-71 Semantic Word Relationships SMWRD

blank

- 0 unrelated
- 1 primarily syntactic relationship
- 2 variant form of same word
- 3 sequential association to prior/subsequent word or to word itself
- 4 association to homophone or homograph
- 5 semantic features in common
- 6 categorical relationship
- 7 generic to specific or vice-versa
- 8 antonyms
- 9 one of a semantic pair (bread, butter)
- 10 slight difference in connotation
- 11 synonyms

APPENDIX F
MARKINGS FOR MISCUE ANALYSIS

(Listed in order of appearance on following marked sample worksheet)

Meaning	Sample	Line No.
<u>dialect</u> -- representative of the reader's speech community	poor, experimenting, this	0101, 0102, 0106
<u>running start</u> -- a repetition with no change in intonation	His little	0104
<u>substitution</u> -- substitution of a word, phrase, or clause	It I was, enough alone, Mr. Mrs. Miller	0201, 0205, 0208
<u>omission</u> -- omission of a sound, word, phrase, or clause	washing, look like new, strange and the unknown	0201, 0222
<u>partial</u> -- an attempt is made at a word and it's either corrected immediately or no attempt is made to complete it.	chem- many chemicals to the mix- mixture	0203
<u>correction</u> -- repetition from the point the underline ends back to its beginning and produces the expected response	he was always like	0210
<u>insertion</u> -- insertion of sound, word, phrase, or clause	half your allowance	0215

Meaning

Sample

Line No.

sounds like -- usually a nonsense word which is spelled the way it sounds to the researcher, retaining as much of the expected response spelling as is appropriate. Includes unfamiliar names.

Freddie nodded

\$brodded

0217

miscue attempts -- multiple attempts listed from bottom to top, numbered to indicate sequence.

interesting

0226

unsuccessful attempt at correction -- repetition does not result in expected response. May be a repetition of same or different miscues.

UC *did not*
i. did not
didn't mind

0310

UC it to you

0525

abandons correct form -- original reading was the expected response. By repeating the section underlined, the reader miscues the second time through.

AC was ringing, ringing.

0409

The dream was so strange

Originally there was a sentence ending intonation after ringing. As reader repeated was ringing, ringing she attached the ringing to so strange, changed the intonation of the second ringing, and omitted the dream was.

intonation -- regression with change of intonation.

I "Do you
? He's

0816,

know, Father; he's ...

0817

Additional Markings not Available in this Sample

Meaning

phoneme split -- sounding out of a phoneme usually into two phonemes.

pause -- a pause of more than 10 seconds in length.

reversals -- reversal of sounds, letters, words, phrases, or clauses.

Sample

Freddie
~~in + ter + est + ing~~
interesting

and chemicals

Mrs. Miller said

Good

or bad

SAMPLE WORKSHEET MARKED
Freddie Miller, Scientist

0101 ^(d) Poor Freddie was in trouble again. He had been
0102 experimenting^(d) with his chemistry set, and Elizabeth's doll
0103 had turned green.
0104 ^(RS) His little sister^(d) was heartbroken. Freddie's mother^(d) was
0105 angry. "You've wrecked^(d) that doll!" she exclaimed.
0106 "What queer experiment was it^(d) this time?"^(dis)

0201 ^(It) "I was only washing^(d) the doll to make it look like new,"
0202 Freddie explained. "I made a special mixture^(d). But I
0203 guess I added^(RS) too many^(d) chemicals^(chem-) to the mixture^(mix-)."
0204 "I guess you did," Mrs. Miller said. "You are just like
0205 your Uncle August - never^(d) letting^(d) well enough alone^(a long)."
0206 Freddie had heard a lot about Uncle August^(d), and a lot
0207 about his other uncles, too. All of them were living^(d) in
0208 Switzerland, where^(d) ^{Mr.} Mrs. Miller had grown up. She was
0209 always comparing^(d) Freddie^(wif) with one of them^(dam). Good or
0210 bad, ^(c) ^(d) he ^(d) was always like one of the uncles^(da)!
0211 His father^(d) usually^(came) called him Tinker because he loved
0212 to tinker^(wif) with machines, tools, and chemicals. But what
0213 his mother^(d) called him depended on what he had done last^(d)!
0214 "I think you should buy another^(d) doll for Elizabeth," she
0215 was saying^(d) now. "I want you^(d) to save half^(of) your allowance
0216 for it each week."
0217 Freddie ^(brodded) nodded sadly. Sometimes^(d) he thought that a

0218 scientist's life was filled with disappointments.
 0219 After the cut in his allowance, Freddie's chemistry
 0220 experiments narrowed to those safely outlined in a library
 0221 book. But he still thought it more fun to pretend to be
 0222 a great scientist, mixing the strange and the unknown →
 0223 None of the chemicals in his set was harmful or likely to
 0224 explode. Yet by accident he might discover a mixture that
 0225 would change the world.
 0226 Then one day Freddie made an interesting mixture that
 0227 was dark and cloudy, and had a queer smell. "I'll keep
 0228 this for a while," he thought happily. "It's pretty good."

0301 Late that day Mrs. Miller went to the kitchen to get
 0302 supper ready. When she opened the refrigerator door --
 0303 well, this is what she told her husband:
 0304 "The worst smell! I thought I would faint! I thought
 0305 the refrigerator would explode. I knew it was Freddie's
 0306 fault!"
 0307 While Freddie cleaned out the refrigerator, his mother
 0308 kept saying, "Just like your Uncle Maximilian! His clothes
 0309 were always smelling of chemicals."
 0310 Freddie didn't mind being compared with his Uncle
 0311 Maximilian, who was a real chemist with a company in
 0312 Switzerland.
 0313 By accident Freddie's next experiment was in a field that
 0314 had nothing to do with chemistry. One day at breakfast
 0315 his father said, "The alarm clock didn't ring this morning.
 0316 I hope it isn't going to give us trouble!"
 0317 And as he was eating, Freddie decided to fix the clock.

0318 Then the next morning, his father would say, "Why, the
 0319 clock works after all!" And Freddie would say, "I fixed
 0320 it, Father. It was easy."
 0321 There was only one thing wrong with this dream.
 0322 Freddie knew that his mother would say, "Just like ^{Unc-}Uncle
 0323 Oscar - always so helpful."
 0324 As surely ^{as} ^{he} knew the alphabet, Freddie knew that
 0325 Uncle Oscar ^{must} have been a terrible goody-goody. Still,
 0326 even Uncle Oscar ^{couldn't} keep Freddie from enjoying
 0327 the moment ^{when} his parents discovered who had fixed
 0328 the alarm.

0401 Taking the clock to the cellar, Freddie worked hard on
 0402 it. ^{From} Then, winding it and setting it carefully, he returned
 0403 it to his ^{parents'} room.

0404 At supper he was careful not to speak of the secret.
 0405 Once, however, he forgot himself; he ^{and} looked at the butter
 0406 ^{saying} and said, "Please pass the clock."

0407 That night Freddie ^{Freddie's} dreamed that his teacher was
 0408 talking ^{angry} angrily to Father. ^{helper} All the time, the school bell
 0409 ^{AC} was ringing, ringing. The dream was so strange that
 0410 Freddie told his parents about it at ^{breakfast} breakfast.

0411 "That wasn't the school bell," ^{say} said Mrs. Miller. "The
 0412 alarm went off at three o'clock in the morning! It sounded
 0413 like a fire siren. ^I It was enough to wake the dead."

0414 "Three o'clock!" Freddie said in a serious voice. ^{What} "That
 0415 ^{can it} can't be! I set it for seven."
 0416 "You what?" Mr. Miller asked angrily.

0501 When Freddie told^(d) how he had fixed^(d) the clock, Mrs.
0502 Miller said, "You're just^(d) like Uncle Charles. My brother
0503 Charles was always^(d) tinkering^(d) with clocks in^(d) Switzerland." ^{(d) Switzerland}
0504 ^(d)Mr. Miller^(d) sighed. "Seriously, Tinker, sometimes I
0505 wish you didn't^(d) want to be a scientist."
0506 ^(d)Then one afternoon, ^(d)when^(d) Mrs. Miller had gone to
0507 visit a neighbor,^(d) Freddie^(d) hurried^(d) to his cellar^(d) worktable.
0508 He was making^(d) an electric bell as a surprise for his mother.^(d)
0509 Just^(d) as he got the parts^(d) in place, he heard a faint tapping^(d)
0510 and a voice calling^(d). ^(d)Somehow^(d) himself^(d) somewhere^(d) above.
0511 ^(d)When Freddie^(d) heard^(d) up from the cellar, he heard^(d) his
0512 sister's voice calling, "Freddie! Freddie!"
0513 "Where are you?" he shouted.
0514 "In the hall closet!" came^(d) Elizabeth's^(d) tearful reply.
0515 "The door blew shut. It's stuck! I can't get out!" ^(d)
0516 Freddie tried, with all his strength, but he couldn't^(d) open
0517 the closet door, either.
0518 "I'll get Mother," ^(d)he^(d) clawed^(d) to Elizabeth. He knew this
0519 could become^(d) a serious matter.
0520 His sister's^(d) cries grew louder. "Don't leave me alone!" ^(d)
0521 ^(d)It's dark^(d), in here."
0522 Freddie, trying to think, looked up at the small window
0523 above^(d) the closet door. He had an idea!
0524 "Listen, Elizabeth," he called. "I'll fix a light and drop
0525 ^(d)it^(d) to you^(d) through the transom^(d). Then I'll get Mother. All
0526 right?"
0527 Elizabeth stopped crying^(d). "All right, Freddie. But
0528 hurry. It's very dark in here."

2. it through the transom
1. it, it through the wor-

0601 At once Freddie set to work seriously at something^d he
0602 had started for fun. ^{When} He ran to the cellar and ^{he} picked^d up
0603 ^a the small battery he had intended to use for his mother's
0604 bell. In his tool box he found another battery, a ruler, a
0605 coil of copper wire, a small bulb, and tape.
0606 Carefully he ^{tapped} taped the batteries end to ^{the of} end on the ruler
0607 so that they touched. ^{He} ^{tapped} taped the wire tight across the
0608 bottom of the end battery. Then he ran the wire up the
0609 ^{RS} sides ^{of} the two batteries to the bulb. ^{RS} After winding the
0610 wire around the bottom of the bulb^d, he taped it in place.
0611 Next he placed the bulb^d so that it touched the cap on ^{de d}
0612 the top battery. The bulb began to glow! Freddie ^{tapped} taped
0613 the bulb^d in place on the ruler. Now he had a homemade
0614 flashlight for Elizabeth.

0701 He tied a string around the end of the ruler ^{3. he hurried} and hurried
0702 back upstairs. Pulling the kitchen stepladder ^{2. and hurried} ^{1. and hurried} out into the
0703 hall and climbing up on it, he found the transom within
0704 easy reach.
0705 ^{It's} Elizabeth
0706 "Elizabeth," he called. "I'm going to drop this light
0707 down to you through the transom. Catch it by the ruler
0708 and let me know when you can reach it."
0709 ^{The} next minute Elizabeth cried, "I have it, Freddie^d."
0710 ^{Hold it by the ruler,} Freddie told her. "Now I'll go
0711 get Mother. ^{Both of us can open the door.} Both of us ^{together} can open the door. We'll
0712 be back soon. Don't be afraid."
0713 "All right," answered Elizabeth. "It's not so bad with ^{d w.f}

0713 the light. It's not so scary. ^{crazy} You're wonderful, Freddie."

0714 That night, when Mr. Miller came home. Elizabeth ^{was} ^{MO}
0715 waited ^{for him} at the front door.

0716 "Father: ^{he} We have ^{something} wonderful to tell you,"

0717 she cried excitedly as ^{he} she pulled him by the hand into the

0718 kitchen. ³ In one corner ² In the corner

0719 ^{1. In the} In one corner of the kitchen, Freddie was busy working ^d

0720 on an experiment. Mrs. Miller was getting ^d ^d ^{supper} supper ready.

0721 "Now what's all this about, Elizabeth?" asked Father. ^d ^{Father}

0722 Then seeing ^d Freddie "What are you doing in the

0723 kitchen with those things?" he wanted to know.

0724 "But, Father," cried Elizabeth, dancing ^d about with ^{wif}

0725 ^{exc -} excitement. "Wait until you hear what happened!"

0726 ^{Ed} Mr. Miller ^d ^{had} heard the story three times - from Freddie,

0727 from Elizabeth, and from Mrs. Miller!

0801 "Tinker," he said, "I'm proud of you. Elizabeth would

0802 have ^{been} ^d had a bad time without your ^d help. Sometimes ^d it's

0803 worse to be badly frightened than ^{den} it is to be hurt."

0804 Freddie's mother looked proud, too. "After this we ^d ^{dis}

0805 must make some allowance for experiments ^{don't} that do not

0806 turn out so well. Such quick thinking! Freddie; ^{You} you re

0907 just like . . . ^d

0908 "Uncle Maximilian?" ^{Said} asked Freddie.

0809 "No," his mother replied.

0810 "Uncle Oscar?" Freddie made a face.

0811 "No." Now ^d she was laughing, too.

0812 "Uncle Charles?" ^d asked Mr. Miller.

0813

"No."

0814

Ⓒ This is

"Then it must be Uncle August," said Elizabeth.

0815

"No." Mrs. Miller smiled at them, and then she said

0816

something that made Freddie feel fine all over. ^I "Do you

0817

know, Father, ^{He's} he's just like you?"

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